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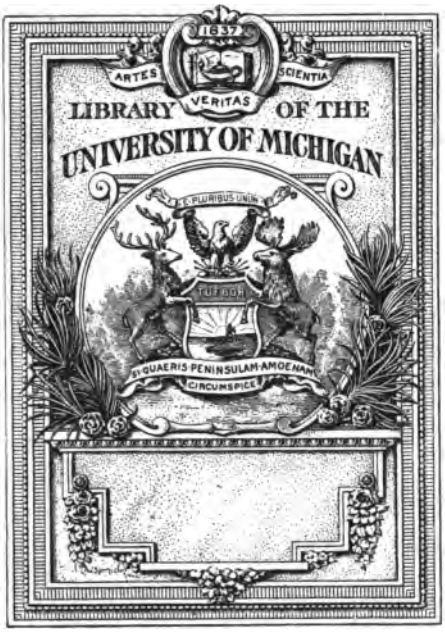
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COMMUNICATIONS.

REPORT ON THE WATER SUPPLY, SEWERAGE, ETC., OF THE CITY OF BELLAIRE, OHIO.

BY H. J. SHARP, M. D., LONDON, OHIO.

Mr. President, and Gentlemen of the State Board of Health: In accordance with a resolution adopted at the meeting of this board in May, as chairman of the committee on Water Sources, etc., in company with Dr. Wise, chairman of the Committee on Epidemics, etc.,I visited the city of Bellaire, Ohio, on the 20th of May, for the purpose of investigating an epidemic of sickness that had been reported to the State Board of Health as prevailing in that city, and which was supposed to bear some casual relation to the water supply. Our arrival had been anticipated, and we were received by Dr. D. Q. Steere, a member of the city council, and chairman of the Sanitary Committee of that body. It being the night of the regular meeting of the city council, Dr. Steere arranged for us to meet that body, and we were pleased to find them a pleasant and intelligent body of gentlemen, ready to extend to us every courtesy and facility for the prosecution of our investigations, and to act upon such suggestions as we might deem advisable to improve the sanitary condition of their city.

On the following day, accompanied by the mayor, Mr. Eberle, chairman of the city council, and Dr. Steere, we made a tour of inspection of the city, noting the sanitary condition of the streets, the plan of sewerage and system of water supply; also, visited the city of Wheeling, W. Va.; viewed the site at which the night soil and garbage of the city of Wheeling is dumped into the Ohio river, and had a conference with Dr. George Baird and Dr. George I. Garrison, health officer of Wheeling, concerning the feasibility of adopting some other plan for the disposal of the garbage and night soil that are dumped into the river, and which add greatly to the causes polluting the Bellaire water supply.

We found these gentlemen had given very careful and intelligent consideration to this subject, and by a series of experiments, carefully conducted, and which will be more fully referred to further along in this report, had demonstrated the feasibility of disposing of these substances by combustion in properly constructed furnaces, and had induced their city council to appropriate a fund for the erection of a crematory for such purpose.

To understand the situation at Bellaire, a few words descriptive of its topography, sewerage and system of water works, will not be amiss.

The city is built on a narrow plateau, and extends along the river for about two and a half miles, and is hemmed in by precipitous and high hills. The business and older part of the city is compactly built, the houses being crowded together and the streets rather narrow. The surface is alluvium with a gravelly and sandy sub-soil. With all natural facilities for drainage, the system of sewerage is limited and defective, few of the streets having adequate sewers, and large sections of the city being without any means of drainage except as the water finds its way along open gutters and ditches; in many instances, the filthy black water might be seen coursing its way sluggishly in the gutters along the sidewalks in front of the residences and business houses, presenting anything but an inviting sanitary condition. Into the gravel and sand sub-soil have been sunk privy vaults, which may be found in all parts of the city, in many instances without protecting walls or other precaution against contaminating the sub-soil by the percolation of their contents. Under these conditions it is not difficult to conceive that this old city is underlaid by a very volcano of foul gases and effluvia, that are liable to insidiously emanate with pestilential disaster to its people.

The sewers as constructed or designed, are made to carry their contents into the river, or indirectly through Indian run or McMahon creek into the river. The water works supply the city with water taken from the river. The water is pumped into a reservoir some three hundred feet above the level of the river, and thence, by a system of wooden pipes, distributed to all parts of the city.

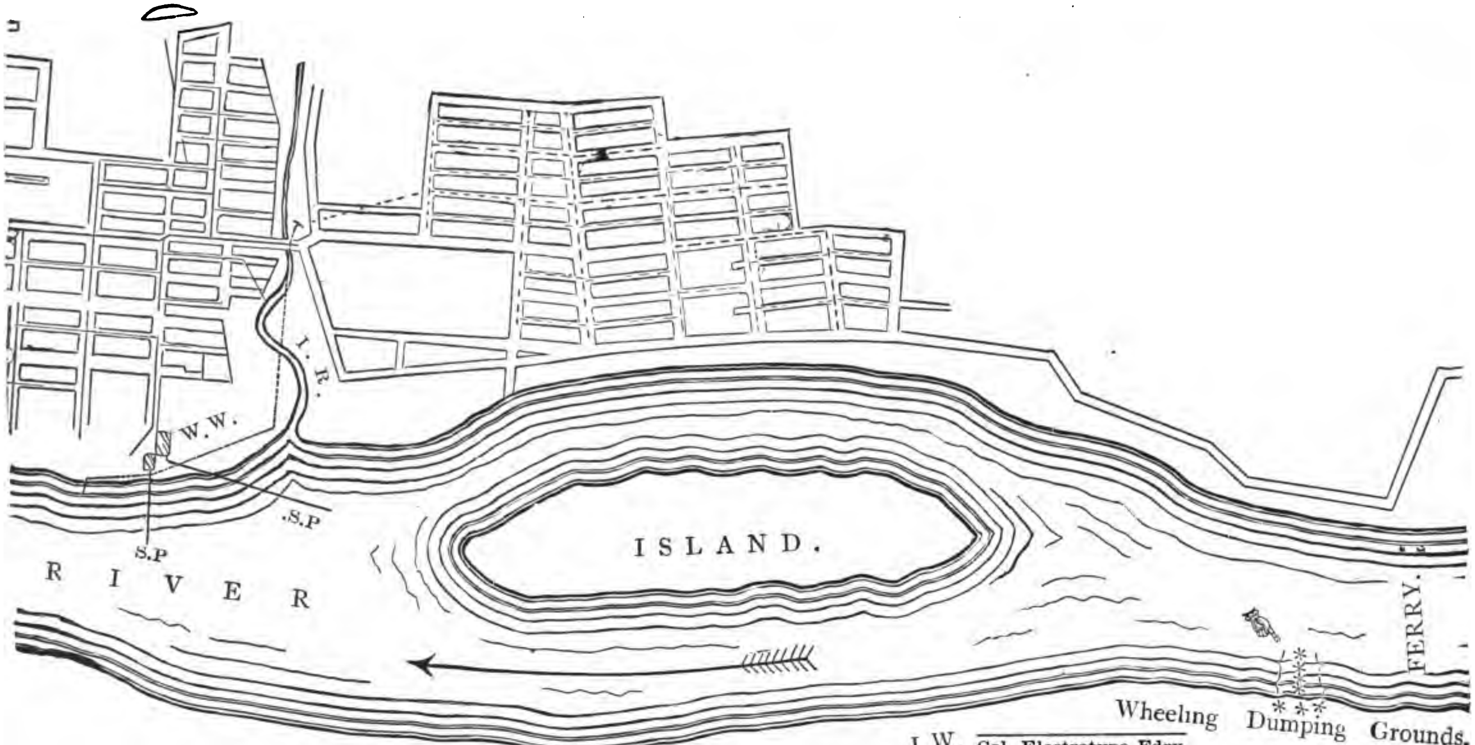
This water, as procured from a hydrant, is clear, and not in the least, to the eye, unattractive, but when the source of supply, the relation of a considerable portion of Bellaire's own sewerage, and the sewerage, together with the dumping of the garbage and night soil of Wheeling, are considered, one cannot but wonder that the intelligent people of this city have not long since declared war upon the state of things found to exist.

Reference to the diagram will show a map of the city of Bellaire, prepared by City Engineer, A. J. Norton. The city of Bellaire is situated on the Ohio river, a short distance below the city of Wheeling, W. Va., the distance from the center of one to the center of the other city being about three and a half miles, and the lower part of the city of Wheeling extending to a point almost opposite to the upper portion of the city of Bellaire.

WW is the point on the river at which the power house of the Bellaire water works is situated. S P and S P are supply pipes, through which the river water is brought to the pumps. I R is Indian run, a small rivulet that runs from the hills in the rear of the city and empties into the river at a point just above the principal supply pipe. This rivulet drains the surplus water from one or more coal mines, and the waste water and sewerage, through open ditches, and public and private sewers emptying into it, for a portion of the city containing some 2,500 inhabitants. There is an island in the river, nearer the Ohio than the West Virginia shore, which seems to divide the current of the stream.

The dumping ground for the garbage and night soil of the city of Wheeling is shown, being just below that city. The garbage and night soil are conveyed to this point in wagons and dumped into the river. The ferry for the accommodation of persons crossing from one city to the other, is immediately below where the sewers of the city of Wheeling commence, which are found emptying into the river at intervals along the entire river front of the city. The population of Wheeling is estimated at 30,000, that of Bellaire about 10,000.

The sewerage from about one-forth of the population of Bellaire empties into Indian run, [only this portion of the town is shown in the diagram,] and thence into the river at the mouth of the supply pipes of the water works, and is pumped up with the water and distributed to the citizens for use. This alone is reprehensible in high degree, and would be enough to pollute the water, but when we take into account the fact



J.W. Col. Electrotype Fdry.
WAX ENGRAVERS.

that the Wheeling dumping ground is only about one mile above these supply pipes, and that 2,000 to 3,000 loads of garbage and night soil are every season, and mostly when the river is at a low stage, dumped into the river, we cannot but conclude that these substances add very considerably to the causes that pollute the water of Bellaire.

Then, again, the sewerage of Wheeling, a city of 30,000 people, is emptied into the river at distances from one to three miles only from the mouth of the supply pipes, whence the water of Bellaire is taken. What must then be the conclusion with these facts before us, as regards the purity or impurity of the water supply of this city? To recapitulate the causes of pollution, we have: 1. The sewerage of a portion of the city of Bellaire, accommodating a population of 2,500, emptied right into the supply pipes of their own water works; 2. The garbage and night soil of Wheeling dumped into the river only one mile above the water works; and 3. The sewerage of Wheeling emptied into the river at points that would average a distance of two miles only from these same supply pipes.

To determine the condition of the water of Bellaire, and the effects of some of the causes of pollution above enumerated, four specimens of water procured at points specified in his report, were submitted to Prof. C. C. Howard, of Columbus, O., for chemical analysis, and I take pleasure in appending his report, and in commending him for the interest manifested, and for the painstaking and scientific ability brought to the aid of our committee in prosecuting the investigations of the subject, free of charge:

COLUMBUS, OHIO, July 23, 1886.

H. J. Sharp, M. D., London, O.—DEAR SIR: I have completed the chemical examination of the four samples of water sent from Bellaire, O., with the following results:

	Parts per 100,000.						
	Oxygen required.	Free Ammon.	Albuminoid Ammon.	Nitrous acid.	Nitric acid.	Chlorine.	Total solids.
4. Ohio river 400 ft. above Wheeling, night soil dump.	.35	.020	.012	.003	.347	.92	10.5
3. Power house, Bellaire water works.	.36	.028	.015	.008	.356	.88	11.7
1. Hydrant B. & O. depot............	.45	.011	.015	.001	.366	.88	11.3
2. Hydrant 300 ft. above the river.	.86	.013	.018	.001	.375	.85	11.8

Inferences to be drawn from analytical data:

1st. Oxygen required. If .02 be taken as the maximum required for good water, these samples are found to require from two to four times that quantity. One and two though similar in many other respects, differ in the quantity of organic matter contained as shown both by the large quantity of oxygen required to oxidize organic matter in No. 2, and by the greater amount of charring on ignition.

2nd. Free ammonia. The presence of this substance indicates that decomposition of nitrogenous organic matter has taken place, and the quantity becomes a measure of the extent of this decomposition.

A good water should not contain over .002 or .003 part per 100,000, and judged by this standard these waters contain a considerable quantity of decomposing nitrogenous matter. The reduction in the quantity of free ammonia in water taken from the hydrant is due, doubtless, to its exposure to the air in the reservoir, and does not prove that the objectionable forms of organic matter present have been removed.

3rd. Albuminoid ammonia. This represents a portion of the decomposing nitrogenous matter present in the water. The fact that the water drawn from the hydrant is not better than the water as taken from the river, is shown by the fact that there is no diminuation of the factor, but rather a slight increase.

4th. The quantity of nitrous acid present in the two samples of river water, particularly that taken from the power house, marks it as an objectionable water. In the water drawn from the hydrants, the quantity present is much diminished, I believe, by the oxidation of the nitrous to nitric acid, an opportunity for which occurs when the water is thrown up into the stand pipe.

5th. Nitric acid. The quantity of this is quite uniform, slightly increased, however, in the samples drawn from the hydrants, and arising, probably, from the oxidation of the ammonia and nitrous acid.

6th. The chlorine is not particularly high for a river water.

7th. Total solid. These are low and indicate that the water is a soft one.

Examination of the quantitative results shows that the water taken in at the power house is much more impure than the water taken a mile above, and 400 feet above the Wheeling night soil dump.

This shows, as might be expected, that the pollution of the water by the night soil dump is not overcome by the slight purification exerted in running one mile. The effects of such purification are clearly seen in the changes taking place in the water after being thrown into the reservoir.

It would be valuable to examine the river water above the entrance of the Wheeling sewers.

I am very respectfully,

CURTIS C. HOWARD.

Wheeling's water supply is taken from the Ohio river, but the city is liable to some extent for the same crime against sanitation that is chargable to Bellaire, in that the supply pipes do not extend sufficiently far up the river to be uninfluenced by the sewerage of the upper portion of the city. In the chemical examination made by Prof. Dwight of the Wheeling water, a partial report of which Dr. Geo. I. Garrison has kindly sent to me, the water in the reservoir shows as follows:

Parts per 100,000.		
Free ammonia.	Albuminoid ammonia.	Organic carbon.
.007	.093	.056

These results mark the Wheeling water as objectionable and far from pure.

Prof. Howard's report of the chemical examination of the Bellaire water is full and comprehensive, and very little further need be said by way of comment, more than to make some comparative allusion to some of the results, and to consider some of the measures that would promise remedial relief from the evils entailed.

By comparing the chemical results in Nos. 3 and 4, No 4, taken from the river 400 feet above the Wheeling night soil and garbage dump, is less polluted than No. 3 at the power house.

Wheeling dumpage is to some extent responsible for this increase, but not wholly so, for Indian run, which is nothing more or less than an open sewer for the accommodation of some 3,000 of Bellaire's population, empties its sewerage immediately into these same supply pipes, and it is taken up without very much dilution, or the purifying effects of a greater distance to flow.

The city of Bellaire must be held responsible for this, their own crime against sanitation, and should at once proceed to remedy the evils, so apparent to all, by carrying Indian run by a properly constructed conduit to a point sufficiently far below their water supply that there will be no danger of contamination from this source. Some such plan has been contemplated, I believe, and I hope, with the interest that has been awakened in behalf of a higher order of sanitary observances, this improvement will soon be made.

The sanitary authorities of Wheeling, under the leadership of such wide awake and intelligent sanitarians as Drs. Baird. Garrison and Reeves, and actuated by the first law of human nature, self-preservation, as well as humanitarian motives of benefaction, have prevailed upon their wide-awake city council to appropriate a sufficient sum for the erection of a suitable furnace or crematory for the combustion of all waste matter of their city, except sewerage. This plan of disposal of the night soil and garbage will relieve the city of Bellaire of a large amount of filth and polluting matter that has for a long time been dumped into the river. This undertaking of Wheeling for the incineration of this waste matter, is one that must, from its precedence in carrying out a principle that has been inculcated recently by progressive sanitarians, be hailed with very great interest. I have deemed this undertaking of such importance that I requested Dr. George I. Garrison, health officer of the city of Wheeling, to furnish a history descriptive of the experiments that have led to the adoption of this method and the erection of the crematory, that is now nearly completed, by that city.

He has kindly complied, and, with much pleasure, I include it in full.

WHEELING, W. VA., November 3, 1886.

Dr. H. J. Sharp, London, Ohio—DEAR DOCTOR: It gives me pleasure to answer your inquiries in relation to the experiments which led to the construction of a furnace for the destruction of the night soil, garbage, etc., in this city. Something over a year ago the city council appropriated $5,000 for the erection of a furnace or that purpose. The most diligent inquiries, however, failed to find one in operation anywhere, or any person or corporation who would build one and guarantee it to accomplish the purpose for which it was designed, and the subject was dropped. In May, 1886, it was revived, and our wide awake council appropriated a sufficient sum of money to be used under the direction of the health department in prosecuting experiments, the first of which was made at the gas works.

Night soil was mixed half and half with cinder, coke and slack, and introduced into separate retorts, about one barrel in each retort. The time required for each incineration, in each case, was about two hours. The burning mass emitted an odor like that of burning leather.

The next experiment was made in a boiling furnace, at the Belmont mills, which had been previously heated to a white heat, at which time two barrels of night soil were mixed with slack, equal parts, and consumed in about three hours. The same odor was observed as in the first experiment.

The third and last experiment was made in a Smith heating furnace. A barrel of garbage, one of bone and two of night soil having been procured, the first was introduced and consumed in about three minutes. The bones required about seven minutes to be reduced to ashes. A barrel of night soil was mixed with an equal quantity of cinder and next introduced. It was found that the cinder was a hindrance rather than a help to its destruction, and it was decided to introduce the remaining portion of night soil unmixed. It was poured into the furnace from a bucket, and consumed almost as rapidly as introduced. There was not a particle of odor from the furnace, as in the first two experiments.

The report of the results of our experiments was made to the council, which was accepted, and the committee on health authorized to advertise for plans and specifications of a crematory with sufficient capacity to incinerate all the waste of the city, except sewerage.

There was but one plan submitted which seemed to meet the requirements, and, accordingly, Mr. Smith, its inventor, was awarded the contract.

The crematory, now almost completed, when finished, will be 42 feet long, 6 feet wide and 9 feet high, and will consume sixty barrels of night soil per hour.

It will have an opening large enough to admit the carcass of a horse. It is built of fire brick, and the fuel will be natural gas. With the addition of a "generator," Mr. Smith says, coal, tanbark, peat, etc., can be made to furnish artificial gas as cheap as the product of nature.

I am confident that the crematory will economically and thoroughly destroy the large amount of filth that heretofore has been cast into the Ohio river, greatly to the detriment of our neighboring cities below, and in relieving them of our filth, we, in return, will be relieved of much filth from cities above us, who will follow our example. Already, the authorities of McKeesport and Allegheny City have signified their intention of duplicating our crematory as soon as its success can be proven.

I believe that the time is not far distant when cities everywhere, inland or seaport, will cremate all garbage and waste of whatever character.

Respectfully yours,

GEO. I. GARRISON, M. D., *Health Officer.*

Should this experiment of the enterprising city of our sister State prove successful, I think Dr. Garrison's prediction will be more than realized by other cities rapidly adopting a similar method. In the last two years the disposal of human excreta, garbage, and such like substances, by combustion, has been a favorite theme among sanitarians, but it has remained for this wide awake little city to do the pioneering by the construction of the first crematory for the purpose of which I have any knowledge in this country. It may be true that other similar furnaces have been erected, but I am aware that many others, who, like myself, have been interested in this subject, have not been able to point them out. With this method in vogue, generally, our inland lakes and rivers would be relieved of the most fruitful source of pollution, and the water supply of cities would be much purer.

With this disposition of this portion of Wheeling's waste matter, and the proposed changes and improvements of Indian run, the water supply of Bellaire will be much improved in purity, but will it not still be very objectionable, owing to the sewerage of the city of Wheeling being received into the river at so slight distance above?

I think it will be impossible for Bellaire to have anything like a pure water, unless its supply pipes are carried above the city of Wheeling. The question of filtration has been offered as a remedy in similar cases, but it is doubtful if any system of filtration in vogue would assure that degree of purification that a water contaminated with a large amount of sewerage should undergo to make it potable. Some inventors claim for their systems such combination of the principles of sedimentation or precipitation by the aid of chemicals, and the introduction of oxygen through compressed air with that of filtration, and the nitrogenous elements in solution as well as other matter in suspension, are neutralized and separated so that purification can be relied upon under such conditions as are found to exist in the case before us.

I concede that great advancement has been made, in recent years, in processes for the purification of water through some systems of filtration, but doubt if the more attenuated forms of the poisons recognized by pathologists, and denominated disease germs, can be separated by such processes.

With relations that exist between the cities of Bellaire and Wheeling, one can easily conceive how an epidemic of cholera, typhoid fever or other similar infectious disease of malignant type, originating in the latter, might be conveyed through the drinking water to the citizens of the former, and cause the pall of the shadow of death to overspread that city, and as of old would be sung that touching requiem: "In Rama was there a voice heard, lamentation, and weeping and great mourning, Rachel weeping for her children, and would not be comforted because they are not."

SLIGHTLY SARCASTIC.—"We congratulate the faculty of the *Buffalo Medical College* upon the large class graduated and on the fact that not a single graduation fee had to be returned. Of the entire class of fifty, not one failed to pass the examination for the doctorate. The alumni will rejoice at this evidence of the superior mental ability of the young men in attendance, in spite of the fact that all who present themselves are received as students without any inquiry as to preliminary education. We can hardly credit the report that the faculty were so gratified with the attainment of the members of the class, that it was proposed in addition to the M. D. to confer upon each of them the degree of M. A.; although a precedent for such action was established by conferring the degree of B. S. upon one of the teachers of the school. It is stated that the college, by the provisions of its charter, can grant any degree. If in the future the laws of the State should demand that candidates for the medical degree should possess a degree in arts, provision will doubtless be made to comply with the law."—*Buffalo Med. and Surg. Journal.*

REPORT ON THE INVESTIGATION OF THE EPIDEMIC AT BELLAIRE, OHIO, WITH REMARKS.

BY SIMON P. WISE, M. D., MILLERSBURG, OHIO,
Chairman of the Committee on Epidemic and Endemic Diseases and Quarantine.

Information having reached the President and several members of the Board, that typhoid fever was prevailing to an alarming extent in the city of Bellaire, and was attended by a high rate of mortality, the matter was brought to the attention of the Board at the June meeting, and it was deemed necessary that an investigation be instituted. It was accordingly referred to the proper committees, with instructions to visit Bellaire at once and ascertain the nature of the disease and the cause leading thereto. In obedience to said instructions, Dr. Sharp, Chairman of the Committee on Water-sources, Sewerage, Drainage, etc., and myself went thither on the 29th of June, 1886. We were very kindly received by the medical profession, as well as by the Mayor, City Council and citizens.

As might have been anticipated, we found that the facts in regard to the disease had been grossly misrepresented, especially as to the number of fatal cases. This exaggeration of number of deaths was no doubt largely due to the reprehensible custom which is said to prevail in that city, of placing crape upon the doors of near relatives of the deceased, thus conveying the impression to the uninitiated of a greater number of deaths than in reality occur.

As the press reports had already somewhat jeopardized the business interest of the city, by spreading broad-cast the information that an epidemic of large proportions was prevailing there, we deemed it proper to avoid, as much as possible, giving the matter of our visit unnecessary publicity, therefore we made our stay as brief as possible, remaining only one day. Moreover, it is evident to any one who is acquainted with the nature of sanitary inspections and the labor they entail, that a member of the Board who is actively engaged in the practice of his profession, could not possibly devote such a length of time to an investigation as would be required to obtain complete and reliable data from which correct deductions could be drawn, and which must be had in order to render a report of scientific value. I observe that other State Boards have sanitary inspectors in their employ, who evidently have leisure, and receive sufficient compensation to justify them in devoting all the time to their work that may be required to carry out each investigation to its minutest details. This enables them to unravel the mystery that frequently surrounds an outbreak of disease, and to present the facts in elaborate and exhaustive reports, which often constitute valuable contributions to sanitary literature. The employment of such expert assistance was not provided for by the law creating the Ohio State Board, hence it will be obliged to depend upon the efforts of its individual members, together with such aid as may be contributed by members of the medical profession, and Sanitarians throughout the State.

Owing to the lack of time and consequent meagre data, this report will contain only a general description of the fever, as kindly furnished me by Dr. Steere, of that city, together with such general information as I obtained in brief conversation with a number of resident physicians and private citizens. Through the kindness of the Mayor and City Council our work was very much expedited. They provided us with a conveyance, and conducted us to all the points of interest throughout the city, pointing out all the defects in their sewerage system, and the faulty condition in their water supply, and numerous examples of bad local sanitation. It must, therefore, be remembered that they were by no means ignorant of nor oblivious to the bad sanitary condition of their city, but were fully alive to the situation, and had been making vigorous efforts to extend and correct their sewers, and to enforce better sanitary regulations; but owing to the want of funds and general apathy of the citizens in respect to sanitary matters, their efforts had hitherto been futile.

A full description of the sewerage, water supply, and local sanitary conditions is presented in the report of Dr. Sharp, the chairman of the committee on that subject. I may, however, be permitted to say that if we take into consideration the defective and inadequate sewerage; the gutters in numerous localities serving as receptacles for slops and garbage; the privy vaults being simply pits dug in the earth, and their contents permeating the soil, and when heavy rains occur overflowing and saturating the surface for quite a distance around, and evolving noxious gases under the influences of the midsummer sun; the fact that one of the principal sewers discharges its contents inro the river a short distance above the point from whence the water supply is taken, and lastly, but by no means least of all, the fact that the city of Wheeling, less than a mile above the Bellaire water-works, is committing the gigantic nuisance of polluting the river with the excreta of 35,000 inhabitants, presents the most startling picture of outraged sanitation that the human mind could possibly conceive; a scene the contemplation of which would cause Hygea's cheeks to burn with shame, and would impel her to depart from thence forever.*

While the city of Bellaire is the special subject of consideration of this paper, yet what can be said of this city applies also to the vast majority of towns and villages within the borders of our State. I am utterly surprised, since my attention has been specially directed to this subject, how few towns within my personal knowledge are above even ordinary criticism. And it is self-evident that this state of affairs will never be remedied as long as the matter of sanitation is vested in the sanitary committees of town councils. The fault is not so much with the municipal managers as a body, or with its individual members, as with the entire system of city government. We generally find town councils composed of very intelligent men, who are deeply interested in the welfare and prosperity of the towns in which they reside, and often are capable of wielding a great amount of influence. But they are expected to give a large amount of valuable time and personal attention to the interests of their city, without a farthing of compensation. In fact, instead of remuneration, they frequently receive condemnation and abuse at the hands of their constituents. It requires quite a sacrifice of time from their respective vocations to be regularly in attendance at their meetings, let alone the study and prosecution of sanitary matters to which they cannot afford to devote any time or attention.

Another reason why councils are inefficient in the enforcement of sanitary regulations is the fact that the members generally strive to carry out the will of their personal friends and constituency, the chief aim being to gain a reputation for economy and retrenchment, to lessen the burden of municipal taxation, and it is frequently the case that they are elected with the understanding that they are to oppose the construction of some new sewer, or to exert their influence to defeat some important sanitary improvement, no matter how essential it may be to the preservation of health, simply because it involves the expenditure of money. Moreover, the proceedings of councils are generally conducted in open session, in the presence of all who may choose to attend, hence their transactions may be moulded by outside pressure or minority influence.

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* NOTE.— Since this writing, I am informed that a local Board of Health has been established, which has adopted an excellent code of health laws. Also contracts have been let for the construction of new sewers, and such an interest in sanitary matters has been manifested as portends a speedy correction of all the faulty conditions referred to.

The complainant being known to the public, it often occurs that nuisances are tolerated, and sanitary movements are frustrated, because the parties interested are influential citizens, and their displeasure dare not be incurred.

Much more might be said on this subject, but from the foregoing facts it is obvious that municipal sanitation must ever be a failure while it is intrusted in the hands of sanitary committees appointed by municipal authorities; and the only remedy is the establishment of local boards of health, which should be all means be *obligatory* instead of *optional*, as the statutes now provide. These local boards should be composed of physicians and such other persons who are sufficiently interested in sanitary science to inform themselves upon the subject, and who are capable of appreciating the importance of the enforcement and strict observance of hygienic laws. With good local boards in all of our towns and villages composed of earnest workers, who will take pleasure in co-operating with the State Board in disseminating sanitary literature among the people, and aiding us in educating and enlightening them upon this subject of inestimable importance to their lives, health and well-being; with the principles of sanitary science taught to our children in our public schools, and the precepts of hygiene inculcated in their minds in the days of their youth, our labors will be crowned with success, and our fondest hopes will be realized, and such a magnificent reform will be inaugurated as will mark an important era in the history of our State. But without this aid and assistance, the most strenuous efforts on the part of the State Board of Health will be unavailing.

The history of Bellaire, in point of salubrity is one of sickness, perhaps above the average degree. According to the statement of those resident physicians who have been living there for a number of years, typhoid fever may be said to prevail endemically, cases occurring during every month of the year. An examination of the mortality reports at the health office at Wheeling, disclosed the fact that the same may be said also of that city. Diphtheria has also occurred sporadically, but perhaps to no greater extent than elsewhere, with the exception of the year 1871 at which time, I was informed by Dr. Kurz, the city was visited by an epidemic of no small magnitude, which was quite malignant in character. This epidemic was supposed to have been due to an overflow of the Ohio river, inundating the lower portions of the city and surrounding country. The flood took place in the month of June, and was immediately followed by very hot weather and a prolonged dry period.

Wheeling also participated in this epidemic. We were also informed that periodical malarial fevers were quite common in this locality in years gone by, but that fevers of a distinct malarial type have gradually given place to the enteric forms of fever.

This statement is in accord with that of Dr. Drake, a keen observer and writer on the subject of "Fevers in the North American Valley," and is also corroborated by the observations of the older practitioners of medicine, "that intermittents and remittents were the prevailing forms of fever when the first settlements were made; that, as time passed by, and cultivation progressed, the intermittents diminished in frequency, and the remittents exhibited more and more a tendency to pass into the continued forms of fever, and finally were replaced by ordinary typhoid fever, which became the prevailing epidemic fever."

At the time of our visit, the epidemic had almost wholly subsided, there being only a few remaining cases, several of which we visited. Strictly speaking, it was an endemic, there being no cases in the surrounding country except a few which had visited the city, and had evidently contracted the disease while there. The total number of fully developed cases, collected by Dr. Steere, from all the physicians of the city, amounted to 308, eleven of which proved fatal. He adds, however, that had all the cases of slight indisposition and increased temperature been taken into account, the number would have approached one thousand. The following general description of the disease was kindly furnished me by the above named physician:

> "The rule was that the patient was suddenly taken with violent headache and pain in the back of the neck and limbs; some with vomiting; great restlessness, chilly sensations, and in some cases chills, high fever, temperature ranging from 100° to as high as 106° F., mind clear, as a rule; in a few cases there was a very active delirium. The tongue was coated, but moist and indented by the teeth, anorexia complete, and bowels loose with tendency to diarrhea. There was a very profuse and widespread rash in a few cases, extending all over the body, but, as a rule, there was no rose-colored eruption. A few cases were reported in which there was quite a profuse hemorrhage from the bowels. In all these cases, as far as I can learn, the temperature had been high all through the disease. The duration of the fever ranged from a day or two to fourteen or fifteen days, and almost uniformly ended in recovery."

The important question naturally arises, what name should be applied to this "Bellaire" fever? What place should it occupy in the nosology of disease? I have no doubt that if this question was addressed to a large number of physicians, the responses would exemplify the most marked diversity of opinion and lack of unanimity, that possibly could exist upon any question pertaining to the nature of disease. The majority, probably, would denominate it typho-malarial; others, continued malarial, while others might style it simple continued fever, and many, no doubt, would stand non-committal upon the question—"non-committal fever" might not be an inappropriate name for the disease. That this same type of fever is prevalent throughout our State, both in towns and villages, and notably in the rural districts, is a fact well known to any one who has been engaged in the practice of medicine for a number of years past. It is true it may vary somewhat in different localities, both in severity as well as in some of its clinical features, owing, no doubt, to important differences in the causes producing it; yet it is safe to assert that it is the same form of fever, and in all cases is tracable to bad sanitation. Amidst all this vast array of diversified and contradictory opinions, it cannot effect the chaos very materially, if I contribute my mite to the confusion by making the broad, sweeping statement that I believe *that all those fevers which do not exhibit a definite malarial character, either remittent or intermittent, are but mild or modified forms of typhoid fever, due to the same materies morbi, and their differences in severity are dependent upon different degrees of typhoid infection.* The degree of infection may range from the large amount producing the most virulent form of the disease—which may be determined somewhat by the individual predisposition of the patient—on down through a scale of indefinite gradations to the minor forms of infection; in fact, it may be so slight as to occasion only a brief elevation of temperature and slight intestinal catarrh.

We have a striking analogue representing different degrees of infection in scarlet fever. In this disease we may have in one case the most malignant form of the disease, while in another the infection may be so insignificant as to almost escape detection, and between these two extremes we find various intermediate grades of infection, manifested by the mildness or intensity of the symptoms; yet no one would dare to gainsay but that all of these varieties of scarlet fever were produced by one and the same poison.

The promulgation of such a theory may be regarded as heterodox, in the light of standard authority, and when brought face to face with the largely accepted germ theory of typhoid fever; but this opinion was not arrived at by means of the microscope, by soaring into the transcendent realms of bacteriology, but it is evolved by viewing the matter through the lens of common sense in the light of practical every-day experience. The chief obstacle in the way of general acceptance of this view by the profession, is the fact that they have been bound and fettered by the dictum of text-book authority, to the doctrine that in order that a fever may be entitled to the name of typhoid, it must answer the stereotyped description as laid down by Louis in 1829; that the disease must describe a definite temperature curve; and there must be present tympany, gurgling in the right iliac fossa, diarrhea, certain nervous phenomena, rose-colored spots, etc., etc.; and if a disease does not exhibit the above clinical history, with all those pathognomônic symptoms, that it cannot be typhoid, and necessarily must be malarial or some other hybrid form of fever. Now it seems to me that fifty-nine years of faithful allegiance to a doctrine that has become time-worn and weather-beaten is all sufficient, and the time has about arrived when it should be subjected to the crucial test of criticism. Let us see whether the foundation upon which it rests is not crumbling, and whether it is not in danger of falling to the ground.

The scope of this paper will not permit of an elaborate discussion of the subject, and I shall limit myself to the leading points relative to the distinctive character of typhoid fever as compared with the other forms of fever under consideration; and shall prove by excellent authorities that in reality it has no symptoms or pathological conditions which are not common to all the so-called hybrid forms of fever.

We often hear it positively asserted that the existence of typhoid fever can be determined beyond all doubt by means of the thermometer alone, without taking into account any of the other objective symptoms; the temperature range being of such definite uniformity as to leave no room for error. Even Loomis evinces his concurrence in this statement in the following language: "A temperature of 104 at any time during the first and second day, will consequently exclude typhoid fever from the diagnosis."

An examination of the schematic representation of the typical range of temperature, as presented by Liebermeister and Hutchinson in their articles on this subject, shows a gradual rise from the normal to 105½° on the eighth day, yet they both admit that this is by no means uniform, but is subject to marked deviations, especially in the mild and abortive forms of fever. Liebermeister says: "If we should undertake to give a picture of typhoid fever, which would be true of all its varieties, we would meet with insurmountable obstacles. We are compelled to take account of the numerous varieties which exist, and to consider the different forms which the disease assumes." He describes the abortive forms as follows: "Such cases often begin suddenly without prodromata, the temperature rises rapidly so as to reach 104° on the second or third day. The rapid rise of temperature is accompanied sometimes by rigors and even a chill. For some time the temperature lingers at its height, and then the morning remissions begin, and the course of the temperature corresponds to that of the fourth week of the severe cases, excepting that the return to the normal temperature is much more rapid, and is often accomplished within a few days. Sometimes the absolute grade of temperature is very high. For example, I have met with cases in which the temperature in the axilla rose to 106° or still higher, and yet the total duration of the fever amounting to from seven to twelve days." On the other hand, Strube observed an epidemic during the siege of Paris which he describes as follows: "In many of the cases the temperature throughout was sub-normal, and in others never exceeded the normal point. The roseola was usually profuse; the nervous symptoms were of marked severity, and were in inverse ratio to the temperature, consisting of violent delirium alternating with stupor; the duration of the fever was very short, defervescence usually taking place at the end of a fortnight. The tongue did not become dry and brown; the abdominal symptoms were slight, but the characteristic lesions were found on post-mortem examination."

It might be urged that the mild or abortive forms of typhoid fever are of such rare occurrence as not to deserve consideration. That this is not the case can be proven by reference to the statistics of the hospital at Basle for the year 1869, which discloses the fact besides 206 cases of more or less perfectly developed cases of typhoid fever, there were also under treatment twenty-nine cases of febrile and 139 cases of "afebrile abdominal catarrh." And Liebermeister says regarding the latter: "No inconsiderable portion of which I believe are to be imputed to typhoid infection." Also, according to the report of Streckeisen on the epidemic at Zurich, the number of reported cases was 2,847, and, if the trivial cases called febrile abdominal catarrh are included, the entire number reached 3,756.

The foregoing statements made by observers of undoubted reliability and great scientific acumen, can by no means be ignored, and they prove conclusively that the slighter forms of typhoid infection are quite numerous, and are generally present whenever an epidemic of typhoid fever occurs. We need not confine ourselves, however, to hospital records, nor to the health reports of large cities to establish this fact. Every rural practitioner who has had a moderate experience in the treatment of this fever will have observed that when he has had under treatment four or five members of the same family with this fever, in one or more of them it pursued a mild course, lacking some of its important symptoms, and frequently convalescing rapidly after the fourteenth day; yet no one would doubt but that they were true cases of typhoid fever, and were due to the same cause as the more severe ones. Or would it be reasonable to suppose that five or six persons living under the same conditions and surrounded by the same sanitary influences, could be stricken down almost simultaneously with fever, and it would be typhoid in some of the cases, and some nonsensical malarial fever in the others? I can recall to memory from my own experience, five families in which the total number sick was twenty-three, and out of that number nine were of the mild type of the fever, and had they been isolated from the rest, might have readily been mistaken for one of the so-called hybrid forms of fever.

One of the strongest arguments establishing the identity of typhoid fever is, that its intestinal lesions are constant and absolutely characteristic; and that the absence of these essential pathological conditions in the other species of fever clearly proves their non-identity. It is, therefore, apparent, that in order to determine whether a certain fever is typhoid or not, it becomes necessary that a number of careful autopsies should be held so as to make our investigation satisfactory and conclusive. As we have not had the opportunity of making such necroscopic investigations in the case of the Bellaire fever, we must content ourselves without these data.

When we undertake to study the differential diagnosis of these essential fevers, and take into consideration the vast number of exceptions and similitudes, we are led into a state of mental confusion from which it is impossible to extricate ourselves. The evidences of similarity being so numerous, and the shades of distinction being drawn so finely as to efface all border lines, when it is presented to our minds as a vast whole, the conviction is forced upon us that we are studying only different varieties of the same disease. For instance, Loomis under the head of "Continued malarial fever," (which term he uses synonymously with typho malarial fever) says: "The septic type in many of its phenomena so closely resembles typhoid fever that frequently it is difficult to make a differential diagnosis." Woodward, in his paper on typho-malarial fever, read before the International Medical Congress, at Philadelphia, in 1876, says, in speaking of the pathological conditions found in this fever as compared with true typhoid, "I for one confess myself unable to draw a line between these two conditions. Anatomically they appear to pass into each other by insensible gradations." Further on he says, "There is really nothing in the lesions of Peyer's glands in these cases to distinguish them from ordinary typhoid fever; and it was just these lesions so well known to you all which were observed in the vast majority of those fatal cases of fever occurring during the late war in which autopsies have been recorded or specimens preserved."

Truly, the above statements make one skeptical as to the existence of such a disease as typho-malarial fever. If it resembles typhoid fever so closely in its clinical features and pathological lesion as to render it utterly impossible to discriminate between them, why should it be other than the same disease? We must admit, however, that if ever the conditions were favorable for the co-existence of these two poisons, it was during our late war, when the raw, unacclimated troops of the north were sent at once to campaign or lie in camp in the miasmatic valleys of the Potomac, or the Mississippi and its tributaries, surrounded by bogs and stagnant pools, and exposed to the inclemencies of the weather, while their vitality was lowered by insufficient and improper food and hardship. But I cannot believe that in the absence of these unfavorable and anti-hygienic conditions, such as we find in our northern towns and villages and rural districts; remote from such intense malarial influences, and where cases of periodical fevers are almost entirely unknown, such an admixture of the two poisons ever takes place. It would be singular indeed if the malarial germ of Leveran had become so intimately related to the Bacillus Typhosus of Klebs as not to exert its baleful influence except in conjunction with it.

Furthermore, it would be reasonable to suppose that the two poisons, acting in conjunction with each other, would produce a far worse disease than either one of them acting alone. If we can conceive the co-existence of the two poisons in all their wonted activity and tendency to almost incomprehensible self-multiplication, we would naturally conclude that the system would be overwhelmed by a malignancy that would be utterly intractable to remedies, and speedily fatal in its termination. We would indeed be justified in this conclusion, unless it could be demonstrated that these two poisons are antagonistic or antidotal to each other. The light of future investigation may reveal the fact that the "Baccillus Typhosus" is supplanting the malarial germ by absorbing or devouring it, and typho-malarial fever may be the battlefield upon which the active warfare is waged.

In illustration of the virulency of two poisons, operating upon the system at the same time, I will briefly allude to a sad experience I had in 1875 in the treatment of measles and scarlatina, both diseases manifesting themselves in the same patient almost simultaneously. Some of them had measles first, with all the symptoms characteristic of that disease. The disease would run its usual course until the eruption had partially or wholly disappeared, when, instead of defervescence taking place and convalescence beginning, there would be an increase of temperature to 104° or 105°, and the rash of scarlatina would appear with the characteristic throat symptoms, and all the concomitants of the severe form of scarlatina anginosa. In some of the cases scarlatina was the first disease to manifest itself, and the order of symptoms was simply reversed; only where scarlatina existed first, the two diseases seemed to merge into each other more closely, and were less clearly defined and tended more rapidly to a fatal termination. In all these cases, however, the distinctive eruptions of both diseases were manifest during the course of the patient's illness. I had six cases of this character, all of which resulted fatally.

In regard to the causes of the Bellaire fever, it is patent to the most casual observer that there were several important factors in existence that may have contributed thereto, arising from the bad local sanitary conditions as well as from the water supply, the chemical analysis of which is conclusive. I am informed, however, that at the time of the outbreak of the fever, the river was at a high stage and the outlets of the sewers were entirely submerged, so that the exit of gases through those channels was effectually prevented, and in consequence of this condition, sewer gas escaped through imperfect traps in the streets, and, no doubt, in many instances gained entrance into the houses. The stench of these sewer emanations was perceptible to every one, and was at the time the subject of general remark. The fact of the river being high, and the volume of water largely increased, would militate against the theory of the water supply being alone accountable for the production of the disease; for it must be conceded that when organic matter is largely diluted it greatly lessens its chances of producing disease, and while it is self-evident, in view of all the circumstances, even without the aid of a chemical analysis, that the Bellaire water cannot be otherwise than contaminated in the highest degree, yet we must admit that the greatest danger from it must be when the water is at its minimum in quantity, and the polluting substances are most concentrated. That typhoid fever may arise from the effluvia from sewers is a doctrine very generally admitted by sanitarians, and is supported by the strongest evidence. This cause was recognized as the chief factor in the causation of the disease long before it was known that contaminated drinking water may produce it. "Many instances are recorded in which this fever has constantly prevailed in houses exposed to sewer emanations, either from bad sewers or from want of them, in which proper sewerage has completely removed the fever."

In the report of the medical officer to the privy council we find the following statement: "In twenty-one English towns the average reduction of typhoid mortality after sewerage, was 45.4 per cent. In a case from private information, an outbreak of enteric fever in a training school was localized in certain parts of the school, (whereas the drinking water was common to all,) and was traced to imperfections in the traps in those parts of the house which were affected. In this case the drains led down to a large tank at some distance and at a much lower level, and the smell of the effluvia was so slight, that at first it was not believed that the drains could be out of order. The persistent existence of enteric fever at Eastney Barracks, Portsmouth, appears to have been tracable to sewer air driven back into the quarters by the tide, there being no traps or ventilating openings. Since October, 1878, when the drains were put in order, and better flushed and ventilated, there has been no fever. Other possible causes were carefully inquired into and eliminated." (Parkes.)

These facts seem decidedly to show a causal connection between the effluvia from sewers and excreta, and typhoid fever, and they are supported by the statistical evidence which proves that the prevalence of typhoid fever stands in a close relation to the imperfections with which sewage matters are removed.

As the deleterious effects of sewer gas are so well established, it would warrant the conclusion, that if these noxious effluvia are so potent for evil, emanations from privy vaults and cess-pools, and from earth that has been for years saturated with excrementitious matter, can by no means be salubrious, and no doubt many of the chronic and minor ailments which afflict humanity are attributable to the inhalation of air thus contaminated.

Physicians and sanitarians all agree with one accord, that typhoid fever is pre-eminently a filth disease; and it matters not which view is held, whether it be due to a specific germ and its imperishable spores, or to the bacteria of ordinary decomposition of organic matter. If it is caused by a specific bacillus, the presence of organic matter in a state of decomposition is essential to its propagation and reproduction; serving as a pabulum or nutritive fluid, without which the germ cannot survive. Liebermeister says: "In general, we can say that the disposition of any locality to an epidemic of typhoid fever depends largely upon the extent to which the inhabitants breathe or drink the contents of their privies." The truth of this assertion has been proven by volumes of testimony and can no longer be doubted. The preventive measures may be therefore quite easily formulated, namely: to keep the air we breathe and the water we drink free from all contamination. In order to accomplish this it becomes necessary that a constant warfare should be waged between mankind and filth. Wherever they dwell together in harmony and peace, there disease exerts its fullest sway, but where strife and contention exist between them, and filth is effectually exterminated, there healthfulness reigns supreme.

MISS WOLFE, owner of $10,000,000, who lately died, paid Dr. William Todd Helmuth $5,000 a year to doctor her. Mrs. Alexander T. Stewart retained three doctors at an aggregate cost of at least $40,000, and called in one of them nearly every day. Mrs. William Astor pays to Dr. Fordyce Barker annually an average of $20,000, always sending a check for double or treble the amount of the bill rendered. Her idea is that by rewarding his skill and vigilance liberally she will get the very best service of which he is capable. Mrs. Cornelius Vanderbilt's physician is Dr. W. S. Belden, and although her health is excellent he is consulted often, prevention being preferable to cure, doubtless, and the belief is that the prevention costs not less than $10,000 annually.—*So. Cal. Practitioner.*

MASTERLY INACTIVITY.—"It is a part of the biography of Majendie, that when young practitioners would in their ardor vaunt the success of remedies, he would smile and reply to them with pleasant irony, 'It is plain to be seen, young man, that you have never tried the plan of doing nothing.' Learn old Majendie's lesson, carry it with you into your sick room, and when in the blindness of ignorance you can do naught but err, do nothing — do nothing."— DR. ERSKINE, in *Miss. Valley Med. Monthly.*

OPHTHALMIC TECHNOLOGY.

BY S. L. M'CURDY, M. D., DENNISON, OHIO.

Read before the Stillwater Medical Society, June 7th, 1887, at Freeport, Ohio.

It will be my purpose in this paper to classify or formulate the signs, terms and abbreviations used in the study of the eye in health and disease, so that the articles appearing in current medical literature on this specialty may be better understood.

Of all cases there is probably not one that is shadowed with more mystery to those just beginning to ravel out such problems than a case of hypermetropic astigmatism. In considering this subject we will be called upon to deal principally with refraction and accommodation, normal and in error, and also instruments of precision, and other appliances used to detect and correct these defects of the same.

Vision is produced by rays of light reflected from external objects through the cornea, pupil, lens and fluids, and brought to a focus upon the retina, where the visual impression or picture is made, which is then conducted by the optic nerve to the focus of intellectual perception in the brain. The eye being an optical instrument, a condition necessary to correct and unaided vision is that the retina shall be so related to the refractive media that parallel rays entering the organ when accommodation is at rest shall form an image of the proper focus on the retina. This is refraction. That power of the eye which makes it possible for it to adjust itself for near as well as distant vision instantaneously, is accommodation. Such an eye would be perfect or emmetropic.

When the object to be observed is at 20 feet or more from the eye, rays of light from it are considered practically parallel, and hence do not require an effort on the part of the muscles of accommodation to bring them to a focus. If, however, the object to be observed is nearer than 20 feet, and the rays of light are brought to a focus anterior to the retina, the eye being at rest, it will be necessary for accommodation to be used to properly focus the rays.

The acuteness of vision (the abbreviation for which is V., or in German S.) is estimated by Snellen's test-types for distant vision and Jaeger's test-types for near, or reading distance. In Snellen's types the size of the letters has been determined by placing an object, 3¾ inches square, 200 feet from the eye, this being the distance at which it will always be seen distinctly by the normal eye. Lines are drawn from the four corners of this square to the focus on the retina, making an imaginary pyramid 200 feet long. A letter measuring the distance between these lines at any point measures the acuteness of vision. For the purpose of formulating the acuteness of vision, it is customary to place the test letters twenty feet from the eye. A perfect eye can see No. 20 at twenty feet, or $\frac{20}{20}$. In the formula V. $= \frac{d}{D}$. or V. $= \frac{20}{20}$, d, the numerator, equals the number that ought to be seen at twenty feet, and the D, the denominator, indicates the number that can be seen at same distance. That is, the smallest letter distinctly seen by the normal at twenty feet is No. 20, and in an eye that is only able to see No. 50 at twenty feet, the defect is expressed by the formula $\frac{20}{50}$, and so on. Again, if 200 cannot be seen at twenty feet the card is taken closer to the eye, until No. 200 does become visible; if this is at eight feet the defect is $\frac{8}{200}$. When vision is so defective that the card cannot be seen, fingers are held before the eyes and if they can be counted at two and one-half feet it is expressed as fingers at two and one-half feet. Or if there is perception of light it is so stated.

For testing the eyes for reading, working, or piano distance Jaeger's test-types are used. These types are arranged in sixteen sizes, from a diamond up. A normal eye is able to see No. 1 Jaeger at eight inches. In testing the range of accommodation, $\frac{1}{A}$ expresses the eye's power to adjust itself for distant rays, $\frac{1}{P}$ is the near point and $\frac{1}{R}$ is the distant point, and is formulated as follows: $\frac{1}{A} = \frac{1}{P} - \frac{1}{R}$.

An emetropic eye at rest has its remote point at infenity, or $\frac{1}{\infty}$. If the near point be at seven inches, the formula representing such an eye would be $\frac{1}{A} = \frac{1}{7} - \frac{1}{\infty}$. That is, the eye accommodates for all points beyond seven inches. If an eye is found to be $\frac{1}{20}$ hypermetropic, the total accommodative power is expressed by $\frac{1}{P}$ + the amount of hypermetropia; example: The near point at ten inches, and H. $= \frac{1}{20}$, $\frac{1}{A} = \frac{1}{10} + \frac{1}{20} = \frac{1}{6}$.

It will be impossible in the range of this paper to fully discuss these difficult problems. The remainder of the paper will be devoted to the examination of a case which I think will more satisfactorily explain the use of the ophthalmoscope and test lenses than could be told in any other way.

H. L., aged 28. On inspection the eye is found to be normal. On palpation, the tension, or Tn., is found to be —1. Bowman expresses intra-ocular tension as follows: Tn. + 1; + 2; + 3; according to the amount of increase of hardness of the ball, and Tn. — 1 :— 2 :— 3; according to the diminution of firmness. Our case is found to be Tn. =

—1, which may be due to a low ebb of the physical fluids. He is placed twenty feet from Snellen's test-types. With right eye he can see 200 or $\frac{20}{200}$, and with left eye No. 100 or $\frac{20}{100}$. The letters are somewhat indistinct at certain angles. This clearly indicates error of accommodation. So far we cannot tell whether the defect is hypermetropia or myopia with possibly an element of astigmatism. He is next given Jaeger's test-types and can read No. 6 with an effort with the right eye and No. 5 with the left. An ophthalmoscopic examination is now made, cocaine being dropped into the eyes to temporarily dilate the pupils. The right eye is first examined, the light being adjusted back and to the right of the head on the same level with the eyes, so that the light passing the cheek falls upon the tip of the nose, the patient being directed to look at a fixed point across the room. Directions are also given not to look at the illuminated point on the mirror of the ophthalmoscope, but to keep the axis of vision to the left of it. I take my position to the right and in front. With my head about eighteen inches from the eye and the ophthalmoscope in position, the *red reflex* becomes visible By slowly moving my head toward the eye of the patient, taking care not to lose the *red reflex*, the blood vessels, if the eye be normal, will appear before the visual field at one or two inches from the eye. In this case I could see nothing with the aperature. The rule is to turn on minus or concave glasses until the fundus does become visible. This was done first —.5 D, then —1 D, and so on until —4 D was reached when the fundus became visible. I found the blood vessels, optic nerve, etc, normal. This being registered I proceeded to examine the left eye, the same rules as regards position being observed as with the right eye. After trying various glasses, I found that +4 D brought the fundus into clear vision.

In using the ophthalmoscope it is presumed that the eye of the examiner is at rest as well as that of the one examined. If either eye does accommodate, however, the examination will not be reliable, but if they are both at rest the ophthalmoscope will pretty definitely determine the refractive error. In our case the amount of refractive error was found to be as follows: R. V., —4 D.; L. V., +4 D. That is, if our examination with the ophthalmoscope be correct, our patient would require a glass for the right eye —4 D, or No. 10 concave, and for the left eye +4 D or a No. 10 convex. To verify the correctness of our diagnosis the test lenses were resorted to. If the ophthalmoscope had not been used it would have required a much longer hunt among the lenses to find the one which was so readily found with its use.

No matter whether the amount of refractive error is known or not it is customary in using the test lenses to begin at the weakest of a series. In the right eye we suspect myopia, and hence begin with the weakest minus (—) or concave glass. Blind one eye and place the patient twenty feet from Snellen's test-card and place one lens after another before the eye. The first lens may not improve vision very much, but by continuing in the same line glasses will be found to improve to a certain point and lenses beyond that will impair vision.

In our case —4 made it possible for the right eye to see No. 20—or $\frac{20}{20}$.

As the left eye was found to be hypermetropic, I began with convex or + glasses, +.5 D, then +1 D, and so on, every glass making slight improvement. With +4 D he was able to see $\frac{20}{20}$, or perfect vision.

The examination with test lenses tallied with the ophthalmoscopic test.

The rule for determining the glass for reading distance is to place Jaeger's test-types eight inches from the eye, and the glass that reveals No. 1 distinctly at eight inches, and less distinctly at seven inches, is the one to be used.

A prescription to the optician for this case would be written as follows:

R. V. or O. D. = —4 D, or No. 10.

L. V. or O. S. = +4 D, or No. 10.

In our case, hypothetical, if you please, it was an easy task to ravel out, but of all the trying experiences in the domain of medicine, the one requiring the most patience is a case of hypermetropia or myopia, associated with some form of astigmatism either mixed or irregular.

MEDIEVAL MIRACLE WORKERS.—With the aid of instantaneous photography, Prof. Charcot has obtained pictures of his hysterical and cataleptic patients in every phase and attitude of their complaints. The well-known artistic cultivation of the distinguished Frenchman led him to recognize in these pictures a striking resemblance to the positions and expressions of the saints and miracle workers while "inspired" or "possessed," as found in the pictures that are so common about the churches and museums of Europe. Further investigation shows that the paintings of Andrea del Sarte, Rubens, Roselli, and many others of the old masters, are simply copies from nature, faithfully representing the convulsions of hysterical men and women. As might be expected, this study has excited the wrath of some pious Parisians, and they have denounced it as a heresy that is "dangerous to morality." The spirit of the age protects M. Charcot from the fate of those earlier searchers after truth who have run counter to the religious sentiment of the times; for it has rendered impotent a fanaticism that has lost nothing of its virulence. —*Pittsburgh Med. Jour.*

PICKLE FOR PATHOLOGICAL PREPARATIONS.— Prof. Grawitz, of the Berlin Pathological Museum, has, since April, 1885, been making use of a pickling liquid for the preservation of pathological specimens, and after two years' test speaks enthusiastically of its usefulness. The liquid is prepared as follows: 150 grams of common salt, 40 grams of sugar, and 20 grams of saltpeter are dissolved in one liter of water. This solution is acidulated by the addition of three per cent. of boric or tartaric acid. The acid is necessary on account of the decomposition of the hemoglobin in the tissues. When the preparation is placed in the liquid, water is added until the object sinks in it. The pickle is ready in from four to eight weeks, when the objects are taken out and placed in fresh clear pickle. The quantity of water that requires to be added is from one third to one half. The vessels should be filled brimful, so that when the cover is placed on no layer of air should remain under the cover; the cover should touch the liquid.—*Med. and Surg. Reporter.*

THE INSANE EAR.—Dr. C. F. Macdonald summarizes the cases in which recovery from insanity has occurred, notwithstanding the development of *hematoma auris*. The exceptions to the dictum that *hematoma auris* is indicative of the incurability of an insane patient seem to be so limited in number that this symptom must continue to have grave significance. Dr. Macdonald has not succeeded in collecting more than four cases in which recovery took place notwithstanding the existence of this significant deformity. Although there is but little doubt that most superintendents of lunatic asylums could add examples to his list, they would still continue to look upon the "insane ear" as an ominous sign.—*Journal of Nervous and Mental Disease.*

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SURGERY.

VARICOSE VEINS AND THEIR TREATMENT BY OPERATION.—(Kendal Franks, M. D., in *Dublin Jour Med. Science.*) Varicose veins may result when the veins are no longer equal to the pressure of the blood within them. This may follow from two causes—one *extrinsic*, when from remote cause an unusual amount of pressure is thrown upon the veins, such as pressure upon the iliac veins, due to overloading of the intestines or to some abdominal tumor, or, as in some forms of heart disease, cirrhosis of the liver, and such other obstructions to the free course of the blood in the veins. Or the cause may be *intrinsic*—that is, for some reason or other, the veins have lost their tone and their elasticity, and are no longer capable of resisting the normal pressure from within.

Whatever the agency at work may be, the result is the same—namely, that the balance between the elasticity of the walls of the vein and the intravenous pressure is lost, and gradual dilatation and distension of the veins ensue. This loss of balance will be felt, of course, wherever the pressure is greatest; and these situations are those, in the dependent part of the body, where the column of blood is the longest. If we take a long U shaped tube, and almost fill it with water, the fluid in one limb will rise to the same height as in the other, but the pressure of the fluid on the sides of the tube will be greater the nearer we approach the base of the U—that is, the longer the column of fluid is. So it is in the veins. The column of blood in the veins is supported by the column of blood in the arteries, but the pressure in the veins will depend on the length of the column of blood it has to support. No doubt nature provides a means of taking off this excessive pressure by supplying the veins with valves, so that under normal circumstances the vein has only to support the column of blood that lies between two pair of valves. But nature has also endowed the veins with the power of distending, so as to be able to accommodate an increased quantity of blood, should there arise any temporary obstruction to its onward flow through the heart. Now, when the veins so dilate, the valves within are drawn apart, and so allow of regurgitation. This temporary distension of the veins and insufficiency of the valves is quite a normal process. But suppose that the obstruction to the onward flow of the blood, due to one of the extrinsic causes, is permanent, or that the condition of the vein walls is such that after distension their elasticity has become so impaired as to prevent them returning to their usual size, then the valves remain permanently apart, and are no longer capable of supporting the column of the blood. This throws an extra weight on the valves below, and these again yielding, the functions of the veins become more and more impaired. Now, in obedience to the general law in the body, that when a part loses its function it gradually wastes, so in the veins we find that the valves, being unable to accomplish their purposes, gradually atrophy, and may ultimately either disappear altogcther, or their former existence only be recognized by thin fibrous bands on the inside of the vein. Hence it is, as Gay says, that "as a rule, veins that become varicose are destitute of valves."

Thus it happens that veins below the original site of lesion have a permanently increased pressure of blood thrown upon them, and this alone will eventually cause them to become varicose, even though they were themselves originally healthy, and although the original cause of the obstruction to the circulation may have disappeared. Let me here give an illustration of what I mean. Suppose that the original cause of increased pressure in the veins of a limb has been due to constipation, and the pressure of intestinal accumulation upon the iliac veins—suppose that this continued long enough to cause varicosity in some of the veins of a leg, say below the knee; after a time the valves in these veins have become atrophied, and the veins permanently dilated—now, suppose that under proper treatment the constipation has been cured, will this allow the veins to resume their normal condition? No; on the contrary, this very destruction of the valves has thrown a permanently increased pressure on the veins below them, and this alone will cause them to undergo the same process, unless means be adopted to relieve them of the unusual pressure.

Now, to the sequel of events following on a vein in the leg becoming varicose. The circulation in the part is checked, the nourishment of the part is, therefore seriously interfered with. The skin first becomes discolored and suffers from a form of eczma. Finally, the skin supply is so deficient the part sloughs, and we have, as a consequence, an ulcer. Added to this, that the vein wall may suffer, and terrible hemorrhage may ensue, not only from the lower radicals but from the trunk, in which there are no valves to check the backward flow. Now, under these varying circumstances, what treatment should we adopt? In the early stage, when as yet the vein is to a limited extent involved, but before the skin has suffered in any way, there can be no question that palliative measures should be adopted, and of these, in my opinion, the best is the elastic bandage. Its object is to yield that support to the veins, which their walls are unable to afford, and by such means, provided the offending cause be removed, and provided that the valves have not been destroyed, we may even hope for a cure ultimately. I will go further and say that in old and very debiliated subjects, such palliative measures are preferable to operation, under all circumstances. Again, if the varicosity of the veins in the legs be due to an irremediable extrinsic cause, operation is obviously excluded; as, for instance, if the condition be due to pregnancy, to preasure of an abdominal tumor on the iliac vein, to disease of the heart, to cirrhosis of the liver, and so forth. Therefore, in all cases before operative measures be adopted, it will be necessary to satisfy ourselves first that such causes do not exist. From these exceptions we may deduce the cases in which I believe operation is advisable. Firstly, the varices must be due to intrinsic causes, or to remediable extrinsic causes, such as constipation, the pressure of an ill-fitting truss, tight garters, or too long standing. In these latter cases the cause must be removed. Then again, the patients should be young, or healthy adults; and let me here say that, in my opinion, comparatively slight varicosity may induce us to operate in a young subject, which in an advanced adult would not justify us.

Subject to the conditions already laid down, if, in a healthy adult, we find a varicose condition of the veins accompanied by an ulcer, or with a brawny condition of the skin, or with eczema, if it be sufficiently extensive to give rise to pain or discomfort, I think operation is the best treatment.

[The writer describes various methods of eperating, which have not proved very satisfactory, and continues:]

I have full notes of 18 cases which I have treated by antiseptic excision, several cases, the notes of which I have not preserved. In no case have I seen "phlebitis, erysipelas, or pyemia" follow as a result. The patient being placed under ether, I begin by shaving the parts where I purpose to make the incisions. The skin is then carefully washed with corrosive sublimate solution, sometimes oil of eucalyptus is also used. I then usually fasten a band round the limb, immediately above the knee, so as to distend the veins sufficiently to be able to trace them accurately. If the veins are extensively varicose, it is much better practice to excise the chief radicals at intervals, removing two or three inches at each place, than to attempt to excise a long piece of vein. Nothing is gained by the more extensive incision. Having selected the place for incision, a clean cut is made through the skin, and almost immediately the swollen vein appears. The subcutaneous tissue over it is divided on a director. Should the vein be cut, it is at once seized with Spencer Wells' forceps. A strong cat-gut ligature is passed round the vein at its lower end. The vein above this is seized with the forceps and ligatured. It can then be easily pulled out of its bed. Any radicals going into it are ligatured and cut off; finally, the vein is tied at the upper angle of the wound and the piece excised. When the veins are tough with hypertrophied coats the proceeding is very simple; but when the veins are thin, especially if adhering to the skin, a good deal of care and patience are required. The wound is irrigated with corrosive sublimate solution, 1 in 2,000, a little iodoform dusted over it, and the edges brought together. In my earlier cases, I used to insert a drainage tube, but I now think it is quite unnecessary. The wound is then enveloped in some of the antiseptic dressing, whilst a second and a third piece of the vein are treated in the same way, if necessary. If both legs are involved, the second leg is treated at the same time. Both legs are then bandaged from the toes to above the knee. As a rule, the dressings are left undisturbed for eight or ten days, and when removed we generally find the wounds healed by first intention. In a few cases some suppuration occurred, but this was generally traced to some deficiency in the dressings, at a time when the dressings were improperly prepared. This only delayed the process of healing, but in every case the asepsis of the wound had been sufficient to protect the veins from contamination.

The beneficial effects have been in many cases so marked as to dispel all doubts as to the efficiency of the cure. A man, aged 36, perennially an inmate of the Adelaide Hospital for varicose ulcers, refused several times to have an operation performed. Two years ago he presented himself again, with the ulcer as bad as ever, the skin brawny and discolored, the edges of the ulcer hard, elevated, and inflamed. He consented to an operation for the cure of the veins. I kept him in bed for several weeks, and treated the ulcer until it was about the size of a florin, and was quite healthy. I then had him placed under ether, and excised portions of those veins which seemed to be chiefly connected with the ulcer. All the veins operated on were above the ulcer — that is, on the side nearest the heart. The operation was performed as usual, and the dressings applied were not disturbed for a fortnight. They included the ulcer. When they were removed the ulcer was found to be perfectly healed beneath them, and all the incisions — three in number — had healed by first intention. I allude to this case because it goes to prove that these ulcers are caused by the pressure in their efferent veins.

Early in November last I operated on a young gentleman, aged 25, the subject of extensive varicose veins in the right leg. The saphena vein at the bend of the knee was very large. He had previously been operated on by a surgeon in Dublin twice by the subcutaneous needle method, for the obliteration of the saphena vein at the knee. On each occasion three needles were passed beneath it at intervals of half an inch, and yet when I saw him this vein was as patent and as varicose as if it had never been touched, though the skin over it showed marks of where it had been constricted. I excised portions of the three most aggravated varices I could find. The wounds all healed by first intention. I saw this patient to-day. The veins operated on are all obliterated. He told me he had lost the bursting feeling in his leg, from which he used to suffer, and that he had discarded the elastic stocking. The veins unoperated on remain varicose, neither better nor worse than when I saw him in November, and he is so pleased with the former operation that he wishes all the veins to be treated in a similar manner. This case illustrates the superiority of excision over the constriction method.

Let me say a few words as to the permanency of the cure. If the varicose condition of the veins is due to a cause which we cannot hope to rectify — an extrinsic cause — we cannot expect the operation to be successful. But when we can remove the cause, and when, at the same time, we treat the effect, I consider that we have just grounds for assuming that the cure will be radical. Two years ago I operated on a young man, aged 26, for extensive varices of one leg. A year and a half later he wrote to me to express his great delight at the permanency of the cure; that since the operation had been performed he had been able to take long walks, to stand the greater portion of the day without the slightest inconvenience, or without any sign of fresh varices appearing. I could point to many similar cases.

THE ANTISEPTIC TREATMENT OF CHRONIC LEG ULCERS. — Dr. George R. Fowler, of Brooklyn, (*Med. Record*) calls attention to a practical application of the antiseptic method in the treatment of intractable ulcers of the leg. He has employed it for some time past, to the exclusion of almost every other method, and testifies to the invariably rapid and extremely satisfactory results obtained. The method in question consists in first thoroughly disinfecting the leg, from the knee to the base of the toes, by means of a 1-4,000 solution of mercuric iodide, using the scrubbing-brush vigorously. The hard and elevated edge of the ulcer is now dissected away in such a manner as to leave a beveled edge to the latter. If the base or bottom of the ulcer is occupied by a grayish, soft, and pultaceous, and but indifferently healthy, granulating material, it is best, in addition to the before-mentioned beveling process, to curette by means of Volkmann's sharp spoon, the whole of this away. A solution of the mercuric iodide is now to be again allowed to flow over the parts, in order to still further disinfect the same, after which a thick paste is made by mixing together oxide of zinc and hot water. The water is used hot only for the purpose of insuring that it is pure and untainted. This paste is to be spread, by means of a spatula, upon the ulcer and the surrounding parts. The surface of the ulcer is thoroughly covered with the paste, so that its cavity is entirely filled. A piece of oil-silk with a number of perforations in it for the purpose of facilitating drainage, is now placed over the site of the ulcer, and a cushion of paper-wool, or some other good absorbent material, is bandaged firmly over the parts by means of a gauze roller, and a starch or light plaster of Paris bandage applied over all. This dressing may be allowed to remain for a fortnight without being disturbed, providing no discharge makes its appearance in the meanwhile. Two or three such dressings are usually sufficient to cure the most obstinate ulcer.

"The antiseptic properties of oxide of zinc were first studied by Socin, of Basle, but very little attention seems to have been paid to the subject. I have had occasion to make use of the agent in many ways since it came to my notice, and can report, from a clinical standpoint at least, upon its antiseptic properties. It has served an excellent purpose in many ways other than the particular application to which attention is called in this brief note, particularly as a vaginal tampon, when incorporated in jute, after certain operations upon the uterus or cervix. Such tampons I have left *in situ* for more than fourteen days, at the end of which time they have been found to be as free from odor of decomposition as when introduced. The jute and oxide of zinc dressing makes a far more preferable dressing than the so-called 'antiseptic marine lint,' a preparation of jute and tar, quite popular among gynecologists. This is far from constituting a reliable antiseptic dressing, and is open to the additional objection of being very dirty, speaking now in an esthetic sense. The jute and zinc dressing is highly absorbent, and in fact is in every way a very desirable, cheap, and efficient dressing for the purposes mentioned in this note, as well as for many others which will suggest themselves to the mind of the practical surgeon. It sometimes happens that there is considerable flow of blood following the curetting operation, but there is no objection to this; in fact, according to Schede, of Hamburg, there is more rapid healing, providing a strict antisepsis is maintained, in the case of all wounds when a blood-clot is present under the dressing."

"BLACK EYE."—There is nothing to compare with the tincture or a strong infusion of *capsicum annuum* mixed with an equal bulk of mucilage of gum arabic, and with the addition of a few drops of glycerine. This should be painted all over the bruised surface with a camel's hair pencil and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done immediately after the injury is inflicted, this treatment will almost invariably prevent the blackening of the bruised tissue.—*St. Louis Med. and Surg. Jour.*

DR. H. C. YARROW, of Washington, reports, in the *Phil. Med. Newe*, a number of cases of snake bite in which, for several years, the symptoms of the bite returned with more or less severity, at each recurrence of the anniversary.

"PUG NOSE."—Dr. John O. Roe, of Rochester, (*Med. Record,*) corrects the deformity of pug nose by removing some of the surplus tissue of the end by cutting from the inside of the nose. He reports excellent success.

HOW TO EVACUATE PSOAS ABSCESSES.—Dr. Owen, of London, describes his method as follows: The method of evacuating psoas abscess, which I have adopted in a large number of cases, and which I recommend with confidence, is by a free anterior as well as posterior opening, and by then washing and draining the cavity right through. The first opening I make close above the outer end of Poupart's ligament, using the scapel until about an inch of the length of the fibres of the aponeurosis of the external oblique has been exposed. I then scratch through the fleshy attachment of the internal oblique and transversalis, and, keeping well below the level of the peritoneum, thrust the director into the swelling. Pus escapes, and the opening is enlarged by the dressing forceps and the finger. A stiff probe is then passed through the abscess cavity and made to project beneath the skin on the outer side of the erector spinæ. With this as a guide, a counter-opening is made in the loin. The large cavity is then flushed perfectly clean with a warm antiseptic solution, and a drainage tube of the size of a penholder is laid through the chasm for a few days, being afterward replaced by a silk thread. The parts are liberally covered with bulky pads of wood-wool and finely picked oakum in guaze bags; these are kept in position by a towel arranged as a binder, which, for the sake of compression, is tightly drawn and fixed with safety pins. Next day the cavity is again washed out, under chloroform, if necessary, the wounds being dressed as before. After this, the less it is interferred with the better; if the temperature does not rise, and the discharge does not soak through, the dressings may be left for three or four days, or longer. From the first day the discharge becomes thin and watery; suppuration in the ordinary sense of the word, is at an end, and the cavity steadily contracts into a narrow passage.

If the abscess be so small that the surgeon does not feel inclined to attack it from the front, he may readily work down on to it above the iliac crest, on the outer side of the erector spinæ. The scalpel is needed only for the skin incision, the rest of the operation being performed with equal ease and safety by the use of a steel directer and the ring dressing forceps—at any rate in children.—*British Medical Journal.*

DR. H. W. RIDENOUR, of Massillon, O., in a paper read before the Stark County Medical Society, thinks it passing strange that practitioners should be ambitious to shine as surgeons. "Doctors," he says, "will almost tear each other's clothes off, so great is their rivalry, to aspire to be descendants of the tonsorial homo. How much better it is to dandle the babies, talk about the weather, gossip, be a children's and a ladies' man, with a good fat family practice, have plenty of money and no enemies, no suits for malpractice staring you in the face, and not be liable to the appellation of murderer. The grave will kindly cover the mistakes of the physician, while a crooked limb meets the aspirant to surgical dishonors at every corner."

IF A coil of sheet zinc is put into the water in a vulcanizer it will prevent the formation of much of the black oxide which is found on iron flasks and clamps. After the zinc has been used three or four times the flasks will soil the fingers but very little when handled.—*Dental Advertiser.*

OBSTETRICS.

ALBUMINURIC RETINITIS, ITS DIAGNOSIS AND DANGERS. INDUCED LABOR THE ONLY REMEDY. —(A. D. Williams, M. D., of St. Louis, in *St. L. Med. and Surg. Jour.*) — A few days since I received a letter from a physician in Illinois, requesting my opinion in regard to his daughter. Briefly stated, her case was as follows: She was just ending the seventh month of pregnancy. She had suffered a great deal from "morning sickness," and several days prior to writing, she was seized with a violent and persistent headache, which was rebellious to all treatment. Soon her vision began to fail, and grew rapidly worse until at the moment she was nearly, if not quite, blind. It was this latter symptom which caused the father to appeal to me.

From the history, I suspected albuminuric retinitis at once, and wrote to the father to have her urine examined for albumen. If this were found, I warned him that he must understand that his daughter was in a very critical condition, being in danger not merely of losing her sight forever, but of death itself. As it would take too long for a letter to return to me, and every moment was precious, I advised him at the same time not to delay the induction of premature labor an hour after he became convinced of the presence of albumen.

Before my letter reached him, as I learned by a subsequent communication, spontaneous abortion came on; the mother, after delivery, went into convulsions, sank into coma, and thus passed away, after lying unconscious about twelve hours.

Had this young woman's true condition been recognized at the proper time, some weeks sooner, as might easily have been done, and had premature delivery been resorted to, it is quite possible, not to say probable, that her life might have been saved.

In the transactions of the American Ophthalmological Society for 1886, Dr. Risley, of Philadelphia, reports a case of albuminuric retinitis of so interesting a character that I will summarize it: A physician's wife was pregnant five months. She had had much "morning sickness," and was now seized with violent and continuous headache. This, after a time, subsided, but with its subsidence came on a dimness of vision, which increased until she was nearly blind. The ophthalmoscope was resorted to and revealed typical albuminuric retinitis. The urine was examined and found loaded with albumen. Immediate abortion was advised and urged upon her, and after much hesitation on her part, was permitted. She was delivered of a living fetus, and immediately after delivery she became unconscious, remaining in this condition, but without convulsions, between three and four days. On her becoming conscious it was found that there was partial hemiplegia on the right side, attended by aphasia. The former persisted for several months, but gradually passed off. The albuminuria also gradually disappeared. Several months later all signs of retinitis had vanished from the left eye, and but slight traces of it remained in the right eye. The aphasia had, at writing, also almost disappeared.

We have no hesitation in saying that had this woman been allowed to go to full term, or rather had not premature delivery been so promptly resorted to, she would certainly have become totally blind, and in all probability would have lost her life.

It is always a misfortune for a woman to become pregnant while suffering with Bright's disease; and when the nephritic trouble gives rise to albuminuric retinitis in one in this condition, the case becomes a very serious one indeed. Such a complication is almost certain to be accompanied by grave cerebral disease, and when it comes on any considerable time prior to the normal term of gestation, if proper treatment be not resorted to at once, terminates almost always in total blindness and not infrequently in death.

In order to accomplish any good in such cases, the gravity of the situation must be early recognized, and energetic measures instantly adopted. Medicines directed against the complaint, or complaints, are of no avail; the remedy consists in the induction of premature labor. This is particularly important when the natural period of gestation is remote — say two or three months or more. Of course, if the term is near at hand the patient should be allowed to take the chances; for, while on the one hand, she may be threatened with blindness and death from the disease, it must be remembered that induced (premature) labor is always attended with serious risks, and under this complication the dangers are vastly intensified.

Since the early recognition of the true nature of the trouble is of such paramount importance, we may well inquire what *are* the signs and symptoms by which we may know it. Fortunately they are marked and plain.

Whenever a pregnant woman, either early or late in her gestation, after a few days of persistent and severe headache, which refuses or is slow to yield to the usual nervine remedies, complains of rapidly failing vision, the urine should be at once examined for albumen. If this is found the conclusion may be drawn that she is suffering from albuminuric retinitis. If the physician chance to be an expert with the ophthalmoscope, this instrument at once furnishes him the confirmation (or rejection) of his diagnosis, since typical albuminuric retinitis is characterized by the presence in the retina of masses of white or bluish-white exudations grouped around and about the optic nerve, and by a spotted or specked appearance in the *macula lutea.* Stripes of the exudation often stretch along the blood vessels. The brilliant red of the normal retina is actually covered by these massive exudations, completely hiding the blood vessels in many places, while close along the course of the latter will be seen red patches of extravasated blood. These latter are peculiarly characteristic of albuminuric retinitis.

With such a prodromic history, and with such an ophthalmoscopic picture before him, the physician may know that grave dangers threaten his patient, that she is walking in the shadow of total blindness and death — the latter from convulsions, whether the labor be induced or natural, since the brain is uniformly and seriously involved almost — I may say — always.

In my judgment, as I have already intimated, the proper, indeed *the only* course to pursue in such cases, when the natural term is not very close at hand, is *to induce labor at once.* This is the only salvation for the vision, since the retinæ will surely be destroyed if they are allowed to remain for any length of time in the albuminuric condition. This course also gives the patient a better chance for life, since each day of delay but intensifies the danger which threatens existence.

I am aware that the destruction of the child is no trivial matter, but in recommending this course, I proceed not merely upon the principle that the life of the mother should be preserved when either she or the child must perish, but upon the far stronger one, that without the indicated procedure both mother and child will, in all human probability, perish. This view is justified if the fetus is living; if it be dead, the sooner that it is removed the better.

REFLEX GASTRIC NEUROSES DUE TO UTERINE DISEASES.— G. Braun (*Wien. Med. Woch.*) emphasizes the intimate sympathetic connection existing between the stomach, in particular, and diseases of the female genital organs. Reflex neuroses, indeed, having their outcome from the sexual system, have been time and again noted by specialists in the various branches of medicine. From the side of the uterus it is well known that the various displacements and distortions have a reflex influence on the nervous system. The same holds true of peri-uterine exudations and lacerations of the cervix. The necessity of careful examination of every organ of the body before making a diagnosis as to the special cause of neurotic symptoms can not be too strongly impressed on the general practitioner as well as on the specialist. Braun reports a number of interesting cases in his paper which prove conclusively the dependence of functional gastric derangement on disease of the uterus. In the first case the patient had been treated for a number of months by various gentlemen for chronic gastric catarrh without avail. Finally she consulted Braun, who found simply an abnormal mobility of the uterus. For the relief of this he inserted a Braun-Hodge pessary and the neurotic symptoms disappeared. In a second case, almost continuous vomiting had existed for nearly two years, and the patient had been subjected to varied medication without relief. On examination Braun found a lacerated cervix, repaired the rent, and cured the patient of her neurosis. In a third case, vomiting was a symptom which had lasted for a number of months, whenever the patient assumed the erect position. The uterus was found heavy, subinvoluted, and sagging downward. Pessaries, rest in bed, the hot douche, were tried without much benefit, when finally Braun amputated the vaginal portion of the cervix. As the result of the operation, the depth of the uterus decreased from five to four inches, and on being discharged the neurosis had disappeared.

These cases are very significant, although, doubtless, the majority of practitioners have met with the like. We believe we are right in the statement that the connection between uterus and stomach, as an explanation for neuroses, is generally overlooked. In this journal for November, 1884, a striking case of reflex spinal neurosis will be found reported by Munde. The patient had been bed ridden for about five years on account of paralysis of the lower limbs. She was about twenty-five years of age, and eminent specialists in neurology had exhausted their efforts for her relief. Although there was no special indication of organic disease of the uterus or appendages, and the diagnosis of chronic myelitis in the lumbar region of the cord had been made, the patient insisted so strongly on oöphorectomy as a last resort, that Munde performed it, with the result of restoring the patient to health and usefulness. We recall this case here, because it strikingly indicates what form neuroses may assume, and what unexpected results a forlorn hope may sometimes yield. —***American Journal of Obstetrics.***

COLUMBUS MEDICAL JOURNAL.

EDITORIAL.

HEALTH vs. HEATING AND VENTILATION.

The heating and ventilation of our houses has so much to do with the health and comfort of their inmates, that it surprises us that it receives so little attention. With the proper appliances used, the vitiated or foul air is removed and a supply of fresh admitted, but when such precaution is ignored, the germs of disease are soon manifest; scarlet fever, diphtheria, and other kindred maladies soon follow, which never would have occurred had the best heating and ventilating apparatus been utilized. Parties building would do well to dispense, if necessary, with some extravagant ornamentation and supply their homes with a good hot water heating and ventilating apparatus, and we learn that the apparatus brought out by Mr. Saml. D. Tompkins, Eng., and manufactured by the A. A. Griffing Iron Co., 518 Communipaw Ave., Jersey City, N. J., meets all the conditions required; i. e., cheapness, durability and effectiveness, the latter, however, being the most prominent. We thank the A. A. Griffing Iron Co., for the handsome illustrated circulars they have mailed us, both of their patent Hot Water Heating and Ventilating Apparatus, as well as their numerous constructions for steam uses, and we think those who may be building or about to build would do well to consult with the above firm before purchasing their heating appliances.

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HANN & ADAIR, Publishers, Columbus, O.

THE OHIO STATE MEDICAL SOCIETY had a very successful meeting, at Toledo, both numerically and scientifically. The local brethren entertained regally. The only drawback was the extreme heat.

Dr. Forbes, of Toledo, was made president, without any opposition, while the Secretary, Assistant Secretary and Treasurer were all re-elected, also without opposition.

The devoting of the evenings to social pleasures was a good idea.

The Society meets in Columbus next year, at the usual time.

The attempt, on the part of some, to have the Society swallowed up by the American Medical Association, at its Cincinnati meeting, was a failure; the memory of our Cleveland experience was too fresh.

BEFORE the Medical Examining Board of Virginia, since its organization two years ago, up to April, 1887, the rejections, calculated by State institutions, have been as follows: District of Columbia (colored) and Ohio, 100 per cent.; Maryland, 19 7 per cent.; Kentucky, 20 per cent.; Virginia, 10.16 per cent.; Pennsylvania, 10 per cent.; non-graduates, 75 per cent. All graduates from colleges in New York, Michigan, Tennessee, Missouri, North Carolina (colored), and Germany have passed satisfactorily. Only two homeopaths have appeared before the Board, and they passed.

COMMENCEMENT DAY AT THE WESTERN PENNSYLVANIA MEDICAL COLLEGE, PITTSBURGH, PENNA.—With a banquet provided by the Faculty to the graduates, at the Seventh Avenue Hotel, Pittsburgh, on March 24th, '87 the Western Pennsylvania Medical College concluded its first year. The Spring session for 1887, just closed, was attended by ten students. The corps of Professors in the Faculty of the College numbers twenty-two and an equal number of adjunct teachers and assistants. The number of graduates for this year, is, oddly enough, also twenty-two, the enrollment being sixty; a large proportion of undergraduates here have entered the Junior class for the three years graded course provided by the College. For the initial year the success attained by the Western Pennsylvania Medical College is phenomenal—gratifying alike to its faculty and to the friends and patrons of the Institution—and assures the future solidity and prosperity of the school.

The trustees have erected a substantial and complete college building, the value of which is greatly enhanced by virtue of its location, immediately adjoining the Western Pennsylvania Hospital, one of the first importance, among the large general hospitals of the United States.

The winter term for '87 and '88 opens September 27th and continues six months. For catalogue, address Prof. W. J. Asdale, Secretary, Pittsburg.

MICROSCOPICAL WORK.—We have several times had occasion to speak, in terms of the highest praise, of the work in microscopy being done by Dr. James E. Reeves, of Wheeling W. Va. His slides are in great demand, being considered as typical representations of that which they are mounted to show, while their technical execution is superb. He offers for sale the following typical and very choice mounts:

1.	The Bacillus of Typhoid Fever—Potato and Gelatine-Cultures, per slide		$1 00
	The Bacillus of Typhoid Fever—in tissue, Spleen		1 00
2.	The Bacillus Tuberculosis—	Lung tissue	1 00
	" "	Lupus tissue (very rare*)	1 50
	" "	In Sputum	75
3.	The Bacillus Anthracis—Kidney, Liver and Lung of Rabbit		1 00
4.	The Bacillus of Leprosy—Tubercle of the Skin		1 00
5.	Glanders, Acute and Chronic—Showing Bacilli		1 00
6.	Actino-Mycosis—From Jaw of Bullock, showing the Ray-Fungus		1 00
7.	Swine-Plague—Lung of Pig, showing the Bacillus (?)		75
8.	Croupous Pneumonia—Double-Stained, Very Fine		1 00
9.	Cancers and Malignant Tumors		75
10	Bright's Disease—Large White and Small Kidney, Waxy		1 00

Sets embracing the first seven mounts $6.00; sets embracing speci-

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See Phila. *Med. News*, June 25, 1887.

mens of all the above named, per dozen, $9.00; special mounts made to order from material furnished, $1.00; cast of any tissue, in paraffin, ready for cutting, $1.00.

Expectorated matters may be collected in small tin or glass boxes. Suspected blood-stains may be sent in the material on which they have been discovered. Uterine and vaginal discharges may be collected on a slip of glass and wrapped in paper.

Small pieces of tumors or other solid structures may be sent by mail, care being always taken that they have been well dusted with chloral and wrapped in tin-foil before being put into the letter envelope. The size of the solid specimen need not be larger than a chestnut.

The charge for making microscopic examination and furnishing report, in such cases as above mentioned, with specimen slide will be five dollars. This fee, in all cases, must accompany the material sent for examination. All specimens must come with charges, by mail or express, prepaid.

WE are pleased to learn that, since the announcement of his proposition to translate the medicine of the Talmud, Dr. Von Klein has received voluntary subscriptions for about five hundred copies, including many from clergy of Catholic and Protestant denominations, thus making one-half of the amount necessary to secure the expense of the one thousand copies.

There is no intention to make any money out of this publication, but simply to explore and bring forth from the rich pages of this "wonderful monument of human industry and human wisdom, the Talmud," and add about three hundred years to the history of medicine.

To make these researches will require about three years hard labor; therefore, the sooner the subscription is filled, the sooner the work will be published. It will make about five hundred large octavo pages. Price, $5.00, payable on delivery. Physicians, intending to subscribe, should not delay. No more will be published than the numcer subscribed for.

Address Dr. Carl H. Von Klein, Dayton, Ohio.

THE ability of Dr. R. Harvey Reed as a surgeon has received merited recognition by his recent appointment as surgeon-in-chief of the trans Ohio divisions of the B. & O. railroad, which includes all lines of that road west of the Ohio River. The doctor will have exclusive control of this branch of the company's business, the appointment and supervision of local railroad surgeons, and it comes as a high compliment to the professional ability of Dr. Reed.

MEDICAL COLLEGE OF OHIO.—Prof. W. W. Dawson, for many years Professor of Surgery, has discontinued didactic teaching, but will remain in the College Faculty as Professor of Clinical Surgery.

Prof. Thad. A. Reamy also retires from the didactic teaching, and has accepted the position of Professor of Clinical Gynecology.

Prof. P. S. Conner has been appointed Professor of Surgery and Clinical Surgery.

Prof. Joseph Ransohoff becomes Professor of Anatomy.

Dr. J. L. Crilley, for many years Demonstrator of Anatomy, has been appointed Adjunct Professor of Anatomy, and Dr. F. Kebler, heretofore lecturer on Pathology, has been appointed Adjunct Professor of Practice and Lectuier on Hygiene.

THE next place of meeting of the American Medical Association is Cincinnati, and the time set is the second Tuesday of May. The officers elect are:

President, A. Y. P. Garnett, Washington, D. C.
1st Vice-President, Duncan Eve, Nashville, Tenn.
2d Vice-President, Darwin Colvill, New York.
3d Vice-President, C. J. O'Hagan, North Carolina.
4th Vice-President, A. Stedman, Colorado.
Librarian, C. H. Kleinschmidt, Washington.
Treasurer, R. J. Duglinson, Pa.
Assistant Secretary, J. S. Ransohoff, Cincinnati.

Trustees of the Journal, L. Connor, Mich.; E. O. Shakespeare, Pa.; W. T. Briggs, Tenn.

Judicial Council, J. Murphy, Minn.; J. M. Toner, D. C.; J. R. Bartlett, Wis.; A. B. Sloane, Mo.; X. C. Scott, Ohio; A. W. McClure, Iowa; J. W. Stormont, Kan.

Vacancy in the Council, J. F. Hibbard, Ind.

SECTIONS.

Obstetrics and Diseases of Women, Ely Van de Warker, N. Y., Chairman; E. W. Cushing, Mass., Secretary.

Anatomy and Surgery, Donald McLean, Mich., Chairman; B. A. Watson, N. J., Secretary.

State Medicine, H. B. Baker, Michigan, chairman; S. T. Armstrong, U. S. M. H. Service, Secretary.

Diseases of Children, F. E. Waxham, Ill, Chairman; W. B. Lawrence, Secretary.

Dental and Oral Surgery, J. Taft, Ohio, Chairman; E. S. Talbott, Ill., Secretary.

Practice of Medicine, etc., A. B. Palmer, Mich., Chairman; N. S. Davis, Jr., Ill., Secretary.

Dermatology and Syphilography, L. Duncan Bulkley, N. Y., Chairman.

The N. Y. Homeopathic Life Insurance Company has passed into the hands of a receiver.—*N. Y. Medical Times, May, 1887.*

DR. THOMAS F. ROCHESTER, a leading physician of Buffalo, died of Bright's disease at his residence in that city on May 24, aged 64.

THE death is announced of Dr. Nathaniel Lieberkuhn, the anatomist of the University of Marburg, aged 75 years.

THE renowned Prof. Vulpian, Dean of the Paris Faculty of Medicine, died May 18.

REVIEWS AND BOOK NOTICES.

A Companion to the U. S. Pharmacopeia. Being a practical Commentary and Key to the latest edition of the Pharmacopeia. Second edition. By Oscar Oldberg, Pharm D., and Otto A. Wall, M. D., Ph. D. Octavo, 1226 pages, 650 illustrations. Muslin, $5.00; sheep, $6.00. New York: William Wood & Co.

This work differs from the U. S. Pharmacopeia in noticing many drugs and preparations which the latter does not classify as "officinal," and which are hence not described in it. The number of such drugs is large, and many of them occupy a high place in the good opinion of the practitioner. The work is an improvement on the Pharmacopeia, in that it gives the dose of each drug and preparation, in both metric and apothecaries' weight. A brief statement is also given of the medicinal uses of the articles. The book is designed rather for the use ot physicians, and not, like the U. S. P., for the pharmacist exclusively.

Earth as a Topical Application in Surgery. By Addinell Hewson, M. D. Second edition, with four photo-relief illustrations. Cloth, 12mo., pp. 308. The Medical Register Co., Philadelphia, Pa., 1887. Price, $1.00.

Dr. Hewson has long been known as an advocate of the use of earth as a surgical dressing, and in this work gives his personal experience with it, in the report of ninety-three consecutive cases treated in the men's and women's surgical wards of the Pennsylvania Hospital during a period of six months in 1869. He gives full comments as to its effects on pain, on inflammation, putrefaction and healing. He also adds a chapter on its *modus operandi.* The work is readable and instructive.

A Practical Treatise on Obstetrics. Vol. IV. Obstetric Operations. The Pathology of the Puerperium. By A. Charpentier, M. D., Paris. Illustrated with lithographic plates and wood engravings. This is also Vol. IV. of the Cyclopedia of Obstetrics and Gynecology (12 vols.), issued monthly during 1887. Price of the set, $16.50. New York: William Wood & Company.

This volume completes Charpentier's great work, and gives us the most interesting portion of all. The variety of forceps described is very large, from the original one of the Chamberlen's to the latest modification of Tarnier's. All the obstetric operations are fully described and profusely illustrated.

Puerperal fever is regarded as merely puerperal septicemia, and our author is an extreme advocate of antiseptic obstetrics, including the post-partum vaginal injections in all cases.

Practical Lessons in Nursing, Maternity, Infancy, Childhood. By John M. Keating, M. D., Visiting Obstetrician and Lecturer on the Diseases of Women and Children, Philadelphia Hospital, etc. Philadelphia: J. B. Lippincott Co., 1887. Extra cloth; 12mo.; pp, 221. Price $1. Columbus: A. H. Smythe.

This is the very book for doctors to place in the hands of intelligent patients or to recommend to those who undertake nursing. It is "adapted especially to the use of mothers or those entrusted with the bringing up of infants and children, and training schools for nurses, as an aid to the teaching of the nursing of women." It includes the hygiene of pregnancy, the nursing and weaning of infants, and the care of children in health and disease. The style is plain and the directions practical.

A Treatise on Diphtheria. Historically and Practically Considered, including Croup, Tracheotomy and Intubation. By A. Sanne, Docteur en Medecine Ancien des Hopiteau de Paris, etc. Translated, annotated and the surgical anatomy added. By Henry Z. Gill, A. M., M. D., LL. D., late Professor of Operative and Clinical Surgery in the Medical Department of the University of Wooster, at Cleveland, Ohio, etc. Illustrated with a full page colored lithograph and many wood engravings. Cloth, 8vo., pp. 656. J. H. Chambers & Co., St. Louis, Mo., 1887. Cloth, $5.00; sheep, $6.00.

The work before us will ever remain a monument to the zeal and industry of its translator, who has added much to the author's work. He has introduced a chapter on the Surgical Anatomy of the pre-tracheal region, with special reference to tracheotomy in children, in which he quotes extensively from an article by Dr. L. S. Pilcher, published in the Annals of Surgery some years ago. The work closes with fifty pages on Intubation, including its history, illustrations of instruments employed, and the literature on the subject up to date. Dr. Gill has long been known as an indefatigable student on the subject of croup, and especially of tracheotomy. Some years ago he made this subject the basis of a paper read before the Illinois State Medical Society. A disease so common and often so fatal, demands all the study a physician can possibly devote to it, and we therefore trust that this volume will have the reception that it deserves.

Medical Electricity. A practical treatise on the Applications of Electricity to Medicine and Surgery. By Roberts Bartholow, A. M., M. D., LL.D., Professor of Materia Medica, General Therapeutics and Hygiene in the Jefferson Medical College of Philadelphia; Fellow of the College of Physicians of Philadelphia, etc. Third edition; enlarged and improved; with one hundred and ten illustrations. Philadelphia: Lea Brothers & Co., 1887. Cloth; 8vo.; pp. 304. Price, $2.50.

This is an admirable condensation of what is known on the subject of electricity as a therapeutic agent, for the use of the general practitioner. Electricity is a remedial agent which, like the various drugs of the Materia Medica, has its own peculiar indications. Some practitioners use it for everything about which they are in doubt, while others seldom find indications for its use. This work is one of the simplest and clearest, and hence one of the best, for the use of one who is not an expert.

Drug Eruptions. A clinical study of the irritant effects of drugs upon the skin. By Prince A. Morrow, A. M., M. D., Clinical Professor of Venereal Diseases; Consulting Surgeon to the Bellevue Out-door Department, etc., etc. Octavo, 206 pages, one lithographed plate. Extra muslin. Price, $1.75. New York: William Wood & Company.

One who has never given the subject any special thought will, as he examines these pages, experience a feeling of surprise at the number and variety of drugs which may be the cause of a skin eruption. Of course we all know of the eruptions of the bromides and iodides, of belladonna, quinine, copaiba, etc., but we are surprised to find that boracic acid, tartar emetic, arsenic, digitalis, ergot or iron may cause an eruption upon the skin. We think many a physician will here find an explanation of some of his heretofore puzzling skin cases. The work is furnished with a handsome lithograph of iodide of potassium eruption.

A Practical Treatise on Diseases of the Eye. By Dr. Edouard Meyer, Prof. a L' Ecole Pratique de la Faculte de Medecine de Paris; Chevalier of the Legion of Honor, etc. Authorized translation by Freeland Fergus, M. B., Assistant Surgeon Glasgow Eye Infirmary. With three colored plates and 267 engravings on wood. Philadelphia: P. Blakiston, Son & Co., 1887. Columbus: A. H. Smythe. Octavo. 650 pages. Cloth, $4.50; leather, $5.50.

This is a complete manual of ophthalmology. The translating and editing have been done with the assistance of the author. The illustrations have been carefully engraved, and the colored plates, being reduced from Liebreich's Atlas of Ophthalmology and printed under the direction of Dr. Liebreich, are accurate and faithful representations of their subjects.

This book has gone through three French and four German editions. It has been translated into Italian, Spanish, Polish, Russian, Japanese — this, the English edition, making the eighth language in which it has been published. No further proof of its excellence can be furnished.

Practical Lessons in Nursing. Outlines for the Management of Diet; or, the Regulation of Food to the Requirements of Health and the Treatment of Disease. By Edward Tunis Bruen, M. D., Asst. Prof. of Physical Diagnosis, University of Pa., etc. Philadelphia; J. B. Lippincott Co., 1887. Columbus: A. H. Smythe. Cloth: 12mo.; pp. 138; $1.

No part of the training of a nurse is of greater importance than that which pertains to instruction in diet. The book before us, though small, is amply large for its purpose, while its style is simple and adapted to the easy comprehension of persons not specially educated.

Anemia. By Frederick P. Henry, M. D., Prof. of Clinical Medicine in the Philadelphia Polyclinic, etc. Reprinted from the *Polyclinic.* Philadelphia: P. Blakiston, Son & Co. Columbus: A. H. Smythe. 16mo.; pp. 136; $.75.

This little work is based on the personal observations of the author and also the accepted facts of physiology and pathology, and presents in as concise a manner as possible all that is at present settled as to this condition, as to its etiology, pathology, diagnosis, varieties, prognosis and treatment.

PUBLISHERS' DEPARTMENT.

We wish that persons who have tried our Paul Wirt Fountain Pen would drop us a line letting us know how they like them and if they can recommend them.

Burgh Hill, O., June 17, 1887.

Gentlemen:

I have been using the Paul E. Wirt fountain pen over a year. I am satisfied, unqualifiededly, with its work. I would as much think of being without a watch as without this pen.

Yours truly,
John J. King, M. D.

Freeport, O., June 25, 1887.

Hann & Adair:

Sirs—Enclosed you will find one dollar for payment of *Columbus Medical Journal* up to May 1st. 1888. I think your Journal the best I ever read for the money.

Yours respectfully,
R. J. Pumphrey, M. D.

McCormick, S. C., Feb. 3d, 1887.

Messrs. Hann & Adair, Columbus, O.:

Dear Sirs—I failed to get the *December* (last) number of your journal. Will you kindly forward me the missing number? I take a number of medical journals, but consider the Columbus Medical Journal by far the best. Yours truly,

A. & K. R. R. J. A. Robinson, M. D.

Messrs. Hann & Adair:

Inclosed find postal note in payment for Columbus Medical Journal to July, 1887. I have taken the Journal since June, 1876, and think it the best monthly published for the money. Very truly,

W. S. Powell, M. D.,
Defiance, O.

Messrs. Hann & Adair, Columbus, O.:

Enclosed please find one dollar for your Medical Journal, which I consider the best in the world for the money. I could not do without it. I consider it a great treat to receive it regularly every month. Please receipt the endorsed bill and return to me.

Elida, O. Yours respectfully, S. A. Hitchcock.

We are after new subscribers, and to this end propose to give to all who subscribe, now, the COLUMBUS MEDICAL JOURNAL FROM MARCH, 1887, TO JULY, 1888, FOR $1.00. 16 MONTHS FOR THE PRICE OF A YEAR!

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Cincinnati Coll. of Med. & Surg.

The Annual Session will begin next **September** with full Faculty and unsurpassed facilities. Fees: **Matriculation $5, Professors' Ticket $40.** For particulars see announcement, for which address

R. C. STOCKTON REED, M. D., Dean,
164 George St., CINCINNATI, OHIO.

COLUMBUS

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COMMUNICATIONS.

THE SURGICAL TREATMENT OF CHRONIC FOLLICULAR PHARYNGITIS.

BY R. HARVEY REED, M. D., MANSFIELD, OHIO.

(A paper read before the Ohio State Medical Society, June, 1887).

There is, perhaps, no other affection of the throat that is so common (especially in what is known as the catarrhal belt), and which, at the same time, comes on so stealthily, is followed with so many grave complications, and yields so obstinately to all forms of treatment, as chronic follicular pharyngitis.

By chronic follicular pharyngitis I mean a chronic inflammation of the mucous membrane of the pharynx, involving the glandular structures, which become enlarged into papulae, varying from the size of a pin head to that of a split pea, among which will be found winding numerous varicose veins, on a bluish or yellowish red back-ground of diseased mucous membrane. Some of you may more readily recognize this disease by the name of "clergymen's sore throat," chronic lymphadenitis, or granular sore throat, but as our political brethren say at every campaign: "It's the same old coon."

As volumes have already been written on this perplexing disease, and its history has been ferreted out from the time of Galen and Hippocrates, to which has been added an exhaustive study of its pathology, a minute description of its symptoms and physical characteristics, with a due consideration of its multiple complications, I shall not stop here to weary you with rehearsing all this matter over again, which can be found and studied to better advantage elsewhere, but will proceed at once to that which is of more interest to us all, as actual laborers in the field of practice, and will take it for granted that you are familiar with all these important adjuncts to its proper care and treatment.

Its *diagnosis* is easy and simple, and can often be made with the naked eye, and if not, is readily determined with the aid of the laryngoscope, when a number of shiny or pearly looking follicles will be found studded over the pharynx, among which will be seen a network of enlarged veins, winding over a dull bluish or yellowish-red mucous membrane, which at times looks dry and glistening, as if covered with a thin coat of varnish. You will often find these follicles and veins invisible until after you have carefully mopped off the accumulated mucus with a swab, when this disease can be readily distinguished from ulcerous coryza, adenoid vegetations, or mucous polypi. In the former, there is ozena, and a discharge of pus with a peculiar "crushed bed-bug" odor. In the second, if they cannot be distinguished by the unaided eye, or by digital examination, the rhinoscope will readily aid you in distinguishing between the follicular enlargement on the one hand and the vegetating growths on the other. As to the latter, which is referred to by some authors, I could not be induced to believe there is a medical student here to-day that is not smart enough to discriminate between a mucous polypus of the posterior nares, and these follicular enlargements of the pharynx, at a mere glance.

With all that has been written on this subject, I will venture to say that many of you have shared with the author of this paper, the chagrin and disappointment experienced in a failure to give relief to many who have applied for aid, whom you have not only confidently but diligently and skillfully treated, in accordance with one or more of the vaunted methods of the many writers on the subject, and in doing so, "got left after all," and your patient would leave disappointed, if not disgusted.

It is true, the simpler forms of this disease are apt to be neglected, and patients are hard to convince of the importance of treatment, until they have contracted some complication, and apply to you for relief from deafness, chronic hypertrophy of the nasal membranes, or a continued, dry, hacking cough, which provokes their attention, and often, until told by the physician or surgeon that they have a chronic sore throat, seem to be wholly unaware of it, except to remember they did have occasional attacks of sore throat, at which time the complication they complain of grew worse.

I have seen a half dozen of these enlarged follicles so irritate some of the branches of the pneumogastric nerve as to produce almost uncontrollable paroxysms of coughing. Indeed, I have seen patients, who, from no other source, have lain awake night after night, coughing from the effects of these follicles acting as an irritant to the pneumogastric nerve, until from the loss of sleep, they have become feverish, lost their appetites, become anemic and emaciated, while the constant strain from coughing on the lung itself and bronchial tubes has really developed a form of lung trouble that was alarming. On the other hand, I have seen the same patients cease their coughing in a few weeks, and often in a few days, by splitting open these follicles, one by one, with a sharp bistoury, and applying a saturated glycerine solution of carbolic acid, repeating the application of the carbolic acid every second or third day, until every vestige of the follicular enlargements had disappeared. After this, milder applications with the spray will suffice until the mucous membrane of the pharynx regains its normal condition, and, with its improvement, the cough disappears, the patient gets the benefit of refreshing sleep, and regains his normal health and strength.

If the uvula has become elongated and flabby, as it often does, cut it off, and thus get rid of its irritating effects. A simple elongated uvula, under these circumstances, will often start up a violent paroxysm of coughing just as soon as the patient lies down. In fact, I have seen these follicular enlargements so extremely sensitive that the slightest irritation, the mere touching of one of them with the point of a probe, would start up a violent paroxysm of coughing. Do not understand me to say that when patients have tubercular phthisis, followed with a chronic follicular pharyngitis, the treatment and removal of these follicles will cure them; it will often give them great relief, but it will not cure them. But, I do say, that an irritation of the lungs that has been induced by a continued reflex cough, caused by these follicles, if allowed to go on will, and often does, result seriously, but from which the patient will get prompt and permanent relief if properly treated and the exciting cause removed.

After the follicles have been destroyed, any soothing application may be used advantageously; one I prefer is a solution of borax combined with water of thyme, or eucalyptus, to which I add a small percentage of carbolic acid, and dilute with sufficient distilled water to suit the case. Aqua rosæ may be used with or in the place of either of the above in some cases. In other cases, insufflations of powdered iodoform, or the impalpable powder of boracic acid, will give good results when the spray will fail.

If the varicose veins do not subside, and the mucous membrane still continues thick, it should be thoroughly mopped off with the tr. iod. comp. once or twice a week, and followed with the milder applications as above mentioned, keeping a close watch for any new formation of follicles, which should be cared for at once, if they appear, by either cauterizing them with carbolic acid, or by laying them open with the bistoury and then cauterizing them.

In many of these cases, the uvula will be found to be very much elongated, and streaked with varicose veins, which complicates the trouble, and seems to keep up such an amount of irritation that amputation of a portion or all of it becomes necessary, and should be done promptly.

In a number of cases that have come under my notice, a chronic enlargement of the tonsils, with chronic inflammation of the secretory ducts, has been the source of a continuation of the follicular disease of the pharynx, and especially so when there was marked chronic inflammation of the ducts, which often occurs without a great amount of enlargement of the tonsil proper, when nothing but complete enucleation of the entire tonsil will give relief. In some of these cases I have seen the ducts of the tonsil so diseased that you could pass a probe the size of a small rye straw a quarter, and sometimes a half an inch into them, removing at the same time a cheesy secretion, which was very offensive in the extreme to the olfactory nerves. I have never found the use of any local application to these ducts of any permanent benefit, and consider such treatment a mere waste of time and a useless expense to the patient. The cutting off of a slice of these "honey-combed" tonsils will seldom result in any permanent benefit, and usually requires a second operation. As long as any part of these diseased ducts is allowed to remain in them, they keep up their persistent irritation to the pharynx.

The removal of either the uvula or the tonsils can easily be done, and with little or no pain to the patient, by the use of cocaine. They soon get well, and the previously obstinate mucous membrane of the pharynx will be found speedily yielding to treatment.

The intimate relation of the pharynx with the pituitary membrane is such that a chronic inflammation of the latter will keep up the same in the former.

Although the glands of the Schneiderian membrane are small and the follicles in a normal state very difficult to observe, yet they do occasionally become enlarged, and require treatment, and must either be destroyed by cauterization with some chemical, (I prefer carbolic acid) or removed with the thermo-cautery, and until the mucous membranes of the nasal passages are got into a healthy condition, you cannot expect to get a permanent cure of the trouble in the pharynx.

As in the treatment of the mucous membrane of the pharynx, after the follicles are removed, the use of mild remedies with the spray, or in the form of powders, will be found to give the best results in the treatment of the pituitary membrane.

Other complications may interfere and require treatment. The most dreaded of these is the deafness that is nearly sure to follow, sooner or later, chronic follicular pharyngitis. Not that the disease of the Eustachian tubes seems to aggravate the throat trouble, (although I have no doubt it has its influence) but the permanency of the deafness resulting from this disease, and its persistent tendency to get worse, and its resistance to all forms of treatment, especially when of long standing, makes it a complication to be dreaded by both the patient and the surgeon. Should this occur, prompt treatment by the use of the Politzer method of inflation of the middle-ear, or by the use of the Eustachian catheter should at once be resorted to. With the latter the use of an etherial solution of iodoform will be found quite beneficial. In this way the iodoform in fine powder can be carried into the Eustachian tube if not the middle ear. When there is a pharyngeal or bronchial complication, suitable treatment must be directed to it as the case may require.

In addition to the surgical treatment of this disease, the general condition of the constitution must be looked after carefully, and the use of alteratives and tonics directed in accordance with the peculiar condition of each case.

The above general outline of the treatment of this annoying disease I have followed in the main for over five years (after having tried nearly all the others recommended in our books) for the simple reason that I have been enabled by this method of treatment to promise the patient more, and at the same time fulfill my promises oftener and with more certainty than with any other form of treatment I have ever tried. Hence I have given you this little experience in the treatment of this disease for just what it is worth, and at the same time I am open to conviction or conversion to any other form of treatment that will insure me better results in the management of this prevalent and obstinate disease than the one I am now practicing.

WHOOPING COUGH: ITS TREATMENT AND PROMPT CURE.

BY JULIAN HARMON, M. D., WARREN, OHIO.

A paper read before the Ohio State Medical Society, June, 1887.

You may the more readily be led to the cure of whooping cough if I tell you how I was led to it myself. On returning home, March 1st, 1849, after graduation, my father asked: "What did Prof. Kirtland say of whooping cough?" Not much. "What did Dr. Delamater say of it?" Nothing special. "They did not teach you, then, how to cure it?" No, sir, they did not, only to palliate it. "Then you must study it for yourself. Read all you can find about it. Watch it carefully — do your best to cure it. You may succeed. If you do, your life will be of some good to the world." The earnestness of his manner recalled a scene of my childhood. His youngest child was born in the spring of 1835. Late in the ensuing fall, it had whooping cough, and was not fully relieved when measles was prevailing. He said to his wife, "Sarah, if Willie takes the measles, we shall lose him. If I could have cured his cough a little sooner, he might go through — but Willie's lungs are in no condition to stand the black measles."

The sadness of his manner is vivid to my eye even to-day. All sorrow is sacred. The higher the nature which suffers the more sacred its sorrow. Dr. John B. Harmon was a master man — in intellectual power a peer among the very greatest. Six feet high, straight as an arrow — massive head requiring an 8¼ hat — face marked with strong outlines — he was the embodiment of dignity and command, toned down by a natural diffidence, and his consciousness of the lack of early educational abilities. In medical sagacity, a Sydenham — in surgical dexterity, a Hunter. For fifty-five years he gave to Northern Ohio the skill of a most original and independent thinker, and the endurance of the hardiest of hardy pioneers. He went home in his 78th year — form erect, step agile, and mind clear to the last breath. He was said to have been "exactly like his father — looked like him, walked like him, talked like him, thought like him — like him in every particular." His last child semed to be his own counterpart. It was natural, therefore, that he should be profoundly touched by the loss of his babe, and regret that he could not have sooner cured its cough.

It is greatly to his credit that as early as 1835 he believed in its curability, and in 1849 urged me to further effort. I asked him what he had found beneficial. "Mercurial cathartics, frequent emetics, stimulating expectorants, anti-spasmodics, especially stramonium; and sometimes quinine cuts it short," was his reply. In that answer he gave me the key to my subsequent success. The epidemic then prevailing soon subsided, but under his guidance but few cases lasted beyond ten days, near one-fourth the natural duration. In 1854 I again had opportunity to try for its cure, and attained the most complete success. Later experience, and the discovery of the bromide of potassium, chloral, etc., have furnished more reliable medicines, but the principles of the treatment remain unchanged, and hold good upon the new theory of bacteria, as well as upon the old one of malarial influence upon the nervous system, and resulting congestion and inflammation.

Let me briefly outline the treatment, say in case of a robust child four years old, which has been coughing two weeks and whooping one:

First, give a powder of calomel, 1 gr., chlorate potass., 3 grs., every one, two, three and four hours, till free purgation. Second, give ipecac, two grs., tartar emetic, 1-16 gr., in teaspoonful of solution of chlorate of potass., every five minutes till free emesis. Repeat after each paroxysm of cough. If there is decided fever, give it every hour between paroxysms. Third, after the first operation of the emetic, give the anti-spasmodic. I often use the following: ℞. Bromide potass., 30 grains; chloral, 15 grains; water, 2½ ounces; tr. stramonium, 2 drachms; spts. nitre, 2 drachms; simple syrup, q. s. to make four ounces. Give one teaspoonful at a dose. Belladonna, Indian hemp and hyoscyamus may be used alone or in combination like the above. Some objections pertain to each, and skill is required to select the best form for each case. Enough must be given to make a decided prolongation of the intervals of rest. Fourth, give quinine, one to two grs., three times a day. I usually give it in syrup of coffee, with licorice.

As a rule under this treatment, the child will not whoop after twenty-four hours, and the cough will entirely cease within five or six days, often within two or three. If such a child be seen within the first few days of the cough, the following will be good enough:

℞. Bromide Potass......................ʒij.
Tartar emetic.....................grs. iij.
Chloral..........................ʒj.
Water..............................
Simple syrup.....aa..................℥iij

M. Sig. Teaspoonful every three or four hours.

Give the cathartic and quinine as before. The child will not whoop at all. Cough will cease in three or four or five days. The friends will say, it only had a "bit of a cold."

In case of a dry form of the cough, or of excessive viscidity of mucus, an expectorant, containing senega, blood-root, licorice and muriate of ammonia, will aid in the cure. The quinine may be given in it. In case of anemia iron must be given with the quinine. In case of plethoric scrofula, iodide of potass. must be given. In anemic scrofula the syrup of iodide of iron is best.

In short, the system of the little patient is to be strengthened in its every weak point. The disease is to be attacked at all its strongholds simultaneously. If one proves a little strong, plant another battery against it, push it close up, charge the gun with a double load, and soon the capture will be complete. In some cases of debility, a stimulant may be added to the emetic, as nitre, spts. ammon. ar., or whiskey, or brandy. As in the treatment of all other diseases, the greater the skill and experience, the more complete will be the success. A young practitioner must be cautious, but need not be discouraged because he fails of the success I have indicated above. He will soon learn to verify the truth of the rational and prompt curability of Whooping Cough.

About 1851, Dr. Bigelow, in his "Nature and Art in Disease," cites this cough as self-limited and incurable. As a shield against homeopathy the book may have done some good, but the dictum is proven to be false by the cure of this very disease within a twentieth part of its natural duration, so-called. A limit which varies from thirty to one hundred and twenty days is very capricious. Let us kick it aside. While the per cent. of mortality of this disease is small, the aggregate is large, for all children seem to be born to have it. Let us give them the boon of its cure. The youngest and the most delicate will bear treatment effective enough to cure it promptly.

I have applied this plan to a babe only three days old at its attack, which rapidly developed general convulsive paroxysms; all gave way readily; and an experience of thirty-three years justifies me in saying it is effective, easy and safe.

The good effect of the mercurial, I doubt not you will all testify to, and you will readily see its efficacy is enhanced by the chlorate of potass. The emetics more completely expel the mucus from the air passages, and make a sedative impression on the circulative and nervous system, and thus doubly prolong the intervals between the paroxysms of cough.

The antispasmodic comes in to quiet the whole irritation, and hence postpones still further the next recurrence. Quinine is meanwhile asserting its antiperiodic power, which is quite as decided in this disease as in ague. If any fear frequent emetics, let me say the fear is idle. The child will vomit far less in the first twenty-four hours than if they were not given; and as the disease will be cut short very soon, the total vomiting will be in fact quite insignificant. I need hardly add that this plan requires careful supervision in all severe cases where it is desired to attain the most prompt effect, but it is worth while to know that a disease called incurable "from of old till new," is really one of the most curable of all which afflict and destroy the flower and hope of the world.

OLFACTORY ACUTENESS.— Nicholls and Bailey have recently published the results of experiments upon the relative acuteness of the sense of smell in individuals. A series of solutions of oil of cloves, nitrate of amyl, extract of garlic, bromine and prussic acid were prepared by successive dilutions with water until the limit of perception was reached, and then the solutions were placed indiscriminately and submitted to a number of persons of both sexes to classify them properly by the sense of smell. The results showed that on the average the sense of smell was much more delicate in the males tested than in the females; but the degrees of keenness ranged widely as between individuals. Thus three male observers were able to detect one part of prussic acid in 2,000,000 parts of water, though its presence was not revealed by a chemical test; but others, of both sexes, could not detect prussic acid in solutions of almost overpowering strength. The following figures give the average limit of delicacy of perception: Cloves — Males, 1 in 88,128; females, 1 in 50,667. Nitrate of amyl — Males, 1 in 783,870; females, 1 in 311,330. Extract of garlic — Males, 1 in 57,927; females, 1 in 43,900. Bromine — Males, 1 in 49,254; females, 1 in 16,244. Prussic Acid — Males, 1 in 112,000; females, 1 in 18,000.— *Med. Press.*

HOW TO CUT A BOTTLE.— A correspondent of the *Chemist and Druggist*, in describing how to make a percolator, mentions the following method of cutting a bottle: Put the bottle on a level foundation and fill up with oil (I use linseed oil), as far as you wish the line of separation to be. Next get a rod of iron as large as possible, but small enough to get into the bottle. Make the iron almost white hot and dip into the oil. In a very short time a crack will be heard, when the iron can be taken out, and the bottle will be found as neatly cut as if with a diamond. Should the bottle be very thick, and the crack not heard in a minute or so, a dash of cold water outside will settle the business.

AXIS-TRACTION FORCEPS.

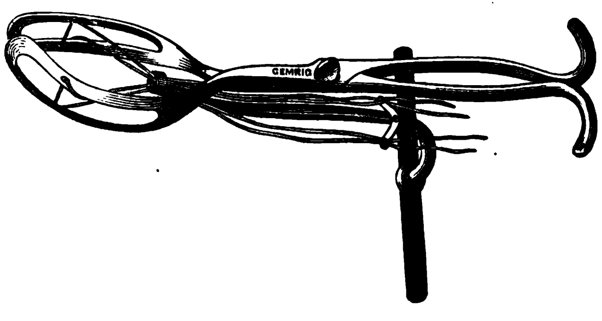
BY J. F. BALDWIN, M. D., COLUMBUS, O.

A paper read before the Central Ohio Medical Society.

For some time past, Dr. Howard A. Kelly, of Philadelphia, has been using with great satisfaction the Levret forceps with the axis-traction attachment of Poullet. This attachment consists of a curved traction bar, which is attached to the forceps by means of tapes, as shown in the cut. These tapes are passed through slots cut in the blades of the forceps. After the forceps is introduced and locked, the tapes are passed through the loop in the end of the traction rod, and the latter pushed up as close to the child's head as possible; the tapes are then drawn taut and fastened to buttons on the ends of the small cross-bar.

The Poullet-Levret forceps combines the ideas of Hubert de Lourain and Chassaigny. The former showed the necessity of pulling in the axis of the pelvis in order to make traction which would be at the same time effective and non-injurious to the mother, while Chassaigny drew especial attention to the importance of grasping the child's head in such a way that the pull comes as nearly as possible in the center of the figure of the child's head.

At a recent meeting of the Philadelphia Obstetrical Society, Dr. Kelly said he had within a week used the Poullet forceps in the following interesting case: "Mrs. K. had a justo-minor pelvis. She had been delivered about two years ago by her present physician, a skilled accoucheur, of an average child by forceps. This time, however, the physician had made long, unsuccessful attempts with a pair of long Simpson forceps, when he called me up, declaring that the head was locked at the brim, and it was utterly useless to try to move it with an ordinary instrument. At his request I applied my Poullet-Levret orceps, with the woman lying on her back. The Levret blades were simply adjusted to the head, which was engaged at the



brim, completely flexed. The first few tractions on the bar seemed to make slight but distinct progress. The head, under the following traction efforts, moved steadily, slowly and quietly down the axis of the pelvis, rotating, and a large head emerged at the outlet. No fixation lock or screw was used to compress the head. We were a long time in releasing the body, but finally delivered a male weighing 13½ lbs., measuring 60 cm. in length, and with a head 47½ x 37 cm. in largest circumferences. The child was profoundly asphyxiated, but revived under swinging and the douche."

No device is used to keep the blades approximated, as in the Tarnier forceps; they are held securely in place in part by the traction of the tapes, but chiefly by the pressure of the maternal structures.

In use, traction is made wholly by means of the traction bar, the handles of the forceps serving merely as an "indicator," with which the traction bar must always be kept parallel, not touching, but close to and following it.

The traction bar being connected by the tapes with the forceps, the latter is free to move in the line of Carus's curve, and to rotate, at least partially, with the head of the child.

The instrument seems to possess all the advantages of, and to be in several respects superior to, the forceps of Tarnier. I recently secured a pair, to take the place of a well-worn Wallace, and have used it once. The patient was a primipara, aged 31, in labor 54 hours. The head had engaged, but had not descended, while the os was fully dilated and the membranes ruptured. No trouble was experienced in the introduction and adjustment of the instrument. Extraction, though not accomplished without vigorous traction, was much less difficult than anticipated from experience with the Hodge and Wallace forceps in similar cases. From the moment of application until its removal just before the head cleared the vulva, the handles of the forceps were not touched; they served to indicate the direction for traction, nothing more.

In the course of a fairly extended experience with forceps, I have used the Hodge, the Sawyer, the Wallace, the Thomas, and now the Poullet-Levret forceps. The Hodge is too heavy; the Sawyer is simply a delusion and a snare; the Thomas, excellent when the head is low down, is not otherwise serviceable; the Wallace is not excelled by any forceps, except those having the "axis-traction" principle; and of these, for perfection in theory, simplicity of construction, ease of adjustment, and delicacy and strength of manipulation, the Pullet-Levret in my judgment stands at the head.

The tapes used should be of *linen*, half an inch wide. My instrument came with *cotton* tape, but this I found was too easily broken. On testing tapes, with a machine for testing tensile strength, I have found that four folds of half-inch *cotton* tape will break at a strain of about sixty pounds, while the *linen* will break at about 130 pounds. This is far beyond the strain which should ever be put upon the forceps.

LITTLE PILLOWS.— Miss Brennan suggests in *The Nightengale*, that chaff, where it can be obtained, makes a good cushion for preventing pressure, and relieving weariness in the sick. These cushions or pillows are most convenient when about twelve inches long and eight inches broad. They must be both firm and soft. Cotton can be used in the absence of better material. In using cotton, pack it evenly, so as to avoid lumps. Cases or covers of old linen make these pillows particularly grateful where used next to the fevered skin.

Six such cushions are not too many for use about the subject of a tedious illness. Two, one upon each side, under the hip bones, take the place of a ring in averting bed-sores, and contributing to the patient's comfort. They can be tucked under the back for a support when the patient is upon the side, answering better than the larger pillows for this purpose. One can be put under the head to save pressure upon the ear, which often becomes tender after being a long time in bed. If the head is to be a little lifted, it is easier for the patient to have one of these cushions slipped under, on top of the pillow, or tucked in so as to prop up the pillow, than to have the whole re-arranged. One can be placed between the knees when the patient is upon the side; under the ankle when the heel has become sensitive to pressure. One can be tucked under the shoulder so as to lift the sharp angles of the emaciated body from the bed. In fine, the uses of these little pillows are numberless, and it would be a most acceptable charity if sewing circles and others interested, prepared them in quantities for hospital use. The emaciated patient, dying of consumption or cancer, would employ them with gratitude; also, surgical cases, such as cases of fracture of the thigh and leg, which must maintain one position. The relief afforded in these cases by a little pillow, now here and now there, must be seen to be appreciated. —*Med. News.*

QUININE IDIOSYNCRACY.

BY C. H. SMITH, M. D., LEBANON, INDIANA.

Referring to the report of a case of *urticaria* by Dr. Learned (COLUMBUS MEDICAL JOURNAL, vol. v, p. 543), my attention was especially attracted by the statement that the record of the cases was so meagre.

Subsequent investigation, though cursory, has convinced me of the substantial accuracy of the statement.

But within the boundaries of the Wabash Valley, where quinine is so universally given in nearly all diseases and as a prophylactic, though the development of this idiosyncracy is comparatively rare, it is really numerically large, especially so when compared with the effects of other ingesta referred to in many or all text books as an exciting cause. Stimulated by such an opinion I am induced to add the following experience to the record:

In October, 1867, I was called to see C. W. Purdy, who had remittent fever. I saw him late in the evening and prescribed quinine freely. I was recalled early in the morning and found patient suffering severely with urticaria, accredited to the quinine. Being incredulous, and believing the eruption might have originated from other causes I repeated the drug under such circumstances as to eliminate all other factors, with the same results.

In Nov. 1875, Jackson Leese called at my office with an ague, and informed me that he could not take quinine. Thinking he might be prejudiced without cause, I directed him to take the quinine and requested him to remain until I could observe the effects. In a short time his condition became absolutely alarming. The urticaria was intense, and the dyspnea so great as to cause serious apprehensions. Several hours elapsed before he could be removed to his residence. I was convinced.

In 1877, Mrs. Tim. Stephenson was seeking relief for a nervous trouble for which she was given quinine. There quickly followed urticaria, attended by cramping, until the extremities became cold. The condition seemed dangerous, and elicited prompt restorative means. Similar results followed the administration of cinchonidia. These cases were treated with small doses, none exceeding gr. v of the sulphate.

PROPRIETARY MEDICINES.

BY I. W. CHISHOLM, M. D., NEW CONCORD, OHIO.

A person on awakening from a "Rip Van Winkle" slumber and perusing our medical journals, would naturally conclude that quite a revolution had taken place in the "practice of medicine" — that the road to medical eminence had been greatly shortened — that "medical college training" was now no longer a necessity, except it might be a short course on diagnosis, and even in this some of the preparations are so accommodating as to render even this unnecessary, that they might be classified under the head of "Cure All," or perhaps more truthfully speaking, "Cure Nothings,"— nicely formulated and sugar-coated, and so kindly presented to us under emblazoned head-lines by a class of persons whom we might denominate "Laboratorical Doctors."

Now, after carefully and thoroughly trying many of these preparations for the diseases for which many of them are *specifically* prepared (and some of them attended with glittering streams of testimonials) I was doomed to disappointment, and when I say this I no doubt express the experience of a large majority of the members of the profession.

I think this formulated laboratorical traffic is being entirely overdone; in fact, it saps of quackery in a sugar-coated form, which might be tabulated under the cover of medical (permissible) ethics, or else it conveys to the mind of the reader that the medical fraternity is not possessed with skill or judgment enough to formulate its own prescriptions, and has to resort to or depend on the skill of these "Plumed Knights" of the laboratory.

Now my opinion is, whatever others may think, that our grandest formulative laboratories are our own offices, whether it be in dispensing our medicines or formulating them on a prescription blank, making our own selections and formulating them according to the exigencies of the case.

Reprinted from the Columbus Medical Journal of August, 1887.

THE MANAGEMENT OF PERSISTENT UTERINE HEMORRHAGES.

BY A. B. CARPENTER, M. D., CLEVELAND, O.

Read before the Ohio State Medical Society, June, 1887.

It is not the purpose of this paper to deal with the pathology, or the medical treatment of persistent uterine hemorrhages, but to call attention briefly to the exploratory plan and method as desirable in a class of cases which seem to have defied the medical treatment usually given. Uterine polypi, fungoid endometritis, the blighted ovum, or a retained bit of living placenta, are among the special conditions to which it is our purpose to call attention. It is evident that the presence of any one of these conditions will defy almost completely uterine therapeutics, and lead the patient a life of misery, discomfort, and danger.

The uterine sound will be our guide in many cases as to the necessity of exploratory treatment, although it will sometimes fail; but as a general rule, persistent flooding, where the canal measures over three and one-quarter inches, will be found to defy therapeutical measures. If the canal is open, as in many cases of endometritis, an intra-uterine application of iodine, carbolic acid, and especially lactic acid, will remedy this difficulty; but should the hemorrhage still persist, the curette will be our resort.

I would here call attention to the properties of lactic acid. It has no action upon healthy mucous membrane, but fungoid or sloughing tissue it quickly attacks and rapidly destroys, leaving a healthy appearing surface, which tends to rapidly granulate and heal. It is not so irritating as some of the older remedies, and is a valuable application; it is to be applied twice a week, in the chemically pure form.

As to the contra-indications to an exploration of the uterine canal, nearly the same rules apply as to the use of the sound, but contra-indications being absent, and the ordinary methods and forms of treatment having been made use of, it is not only proper but it is demanded that we proceed to explore the cavity.

one-half months; that everything came away, but that she had had profuse flooding for the past forty-eight hours. On examination the uterus was found four and one-half inches long and retroverted. Being misled by the statement of the nurse that everything came away all right at the time of the miscarriage, I prescribed fifteen drops of ergot every hour, and placed a tampon in the vagina. A few hours later a message was received that the patient was bleeding to death; I secured aid, and went in haste, prepared to go into the uterine cavity. This was readily accomplished, and a piece of placenta was removed by the curette from near the fundus. The curetting was followed by a 1·500 irrigation of bichloride, and the patient lost no more blood and in a fortnight was well.

This woman would no doubt have died without the aid of this exploratory treatment, and in cases 1 and 2 their sufferings would have continued under the use of therapeutic remedies.

In closing I beg to submit the following propositions:

First—That, after a reasonable trial, we are not justified in allowing a patient having profuse floodings to go on with the simple use of drugs, but should insist upon a careful examination with a view to ascertaining whether there is not some intra-uterine trouble.

Second—That if we find upon this examination a probability that such a state of affairs exist, then we should take steps to dilate the canal.

Third—That Hegar's dilators are quite easily introduced, and when properly used are comparatively free from danger.

Fourth—That their proper use consists in first irrigating the vagina with 1–5000 bichloride before the operation, and then irrigation of the uterine cavity with the same solution after the operation is finished.

Fifth—That by this form of treatment we may afford permanent relief to a class of cases afflicted with these profuse floodings which for years have rendered the patients miserable, and life a burden.

OBSTETRICS.

THE THERAPY OF WHOOPING COUGH. (Prof. A. Vogel, of Munich, at the Sixth German Congress for Internal Medicine. *Det. Lancet.*)—In the case of a nursing-child whooping cough is a dangerous and pernicious disease to contemplate; in older children the course of whooping cough is favorable throughout. In an epidemic in Wurzburg, 52 children under one year were taken ill and 15, or 26 per cent., died; 248 were attacked between 1 and 5, and 12, or 4.8 per cent., died; between 6 and 15 years 87, of whom 1, or 1.1 per cent., succumbed. The remedies recommended for whooping cough are of two great classes—antispasmodics and disinfectants. In treating the spasmodic cough by narcotics one resigns every chance of shortening the process; opium and all its preparations should not be given for any length of time continuously; however, a small dose of opium or morphine is a great relief to children who have passed sleepless nights. A combination of cannabis indica and belladonna is especially recommended by Vetterson of Hamar. Of 116 children 83 showed a favorable result; of these 30 were completely cured in from 8 to 14 days. Prior and R. Pott recommended the painting of the oral cavity with a solution of cocaine from 10 to 20 per cent.; the application of cocaine is, however, not entirely without danger. The antiseptic treatment strives to shorten the attack by destroying the germs of the disease. A residence in gas factories, where the distilled product of the stone coal acts favorably on the mucous membrane of the respiratory apparatus, is first to be recommended. This mode of treatment is sometimes inconvenient; some gases can be generated in the sick room by the use of benzine and carbolic acid. After frequent experience the author did not depend much on this treatment. The inhalations recommended by Pick, of Coblentz, in which 15 to 20 drops of pure carbolic acid are placed in a cotton ball and inhaled, will be endured but a short time by any child. For general disinfection of the sleeping room of the patient Mohn burns 25 grammes of sulphur to each cubic meter of space. Further investigation in this line is to be recommended. Michael, of Hamburg, blows into the nasal cavities, through a glass tube 20 centimeters long, some powdered resin of benzoin, and besides this, uses sulphate of quinine or nitrate of silver in a 10 per cent. mixture with lard. The reports from this treatment in the hands of other physicians is favorable. Concerning psychical treatment, nothing new has appeared in recent literature. No followers have been found for the opinion that feasible, perforate the placenta." 9th. "The next part of the treatment is expectant. Experience shows that flooding ceases." So long as these results remain unsurpassed by those of any other plan of treatment in the hands of different operators, are we not morally bound to accept these teachings? In large numbers of cases, collected by Carpentier, Depaul, Simpson, Schwarz, Trask, Muller and King, we had a maternal mortality ranging from 35 to 22.5 per cent., and in the hands of single operators, Spiegelberg, Barnes, Hecker, Muller and Murphy, a mortality ranging from 16 per cent. to *nil* in the cases of Muller and Murphy. It was also to be feared that harm might have been done by the vigorous defense of the tampon, and that there might be danger of going back to the old bad record. While it might, though rarely, serve a useful purpose in controlling a hemorrhage, it was a dangerous agent and one that could nearly always be superceded by the natural and safe tampon formed by the *leg and breech of the child.* The speaker could not better illustrate this than by a brief reference to one of the tampon's victims: A patient was tamponed, and when the os had been dilated she was delivered of a dead baby with the forceps. The record said she had died one week after delivery of septicemia. Another died six days after version, and presumably immediate extraction, for the autopsy showed rupture of the inferior segment of the uterus. His own record was seven cases; all the mothers saved and three of the children. He wished to plead finally the ease of performing the operation, the necessity for action in the face of hemorrhage, and the efficiency of this natural tampon.—*N. Y. Med. Jour.*

SARCOMA OF THE FEMALE BREAST.—Dr. S. W. Gross, in an exhaustive paper based upon a study of 156 cases, which appears in the July number of *The American Journal of the Medical Sciences*, finds that of the varieties of sarcoma, the spindle-celled, which include the fibrous, constitute 68 per cent., the round-celled 27 per cent., and the giant-celled 5 per cent. of all cases.

Of the entire number only 4, or 2.70 per cent., occurred before the sixteenth year, or during the developmental state of the mamma; 67, or 45.27 per cent., appeared between the sixteenth and fortieth years, or at a period when the breast and genitalia are functionally most active; and and 77, or 52.02 per cent., after the fortieth year, or during the period of their functional decline. Their etiology is most obscure, since their development is rarely traceable to injury or disease, and is not influenced by hereditary predisposition, while the social state and menstrual irregularities or arrest are surely unimportant agents in their production. Their growth might naturally be expected to be connected with menstruation, pregnancy, or lactation, or with conditions which render the mammary gland more vascular; but the influence of an increased flow of blood to the organ, which has been assumed by certain authors, is not confirmed by an analysis of the cases that he has collected. Thus, in only three examples was increase in bulk witnessed at the menstrual period, while in two the tumor became smaller. In one the rapid growth began during pregnancy, and in two at the menopause.

During their further progress sarcomata continue, as a rule, mobile and free from superficial or deep attachments; the contiguous structures are not invaded by tumor elements; the skin remains natural in color and texture; the subcutaneous veins are not enlarged, the nipple is normal; and the associated lymphatic glands are not contaminated. To these general statements the following exceptions were noted.

They are locally infections in 14.19 per cent. of all cases. The skin is ulcerated in 18.59 per cent., and discolored in 23 per cent. The superficial veins are enlarged in 15.39 per cent. The nipple is retracted in only 3.25 per cent. The axillary glands are infected in only 1.9 per cent., and their immunity is a valuable sign in the differential diagnosis. A discharge from the nipple occurs in one out of every nine and a half of cystic sarcomata. Pain is met with in 35.71 per cent of all cases.

Sarcoma is eminently malignant. Thus, of the 92 cases only 1 ran a natural course, it being an example of round celled tumor of both breasts, that proved fatal, with presumed secondary deposits, in seven months from the first appearance of the disease. The remaining 91 were subjected to the knife. Of these, 32 were well for periods which varied between one month and ten years and nine months; 42 were marked by local recurrence; in 8, not only was there regional reproduction, but metastases, and 2 by presumed metastases, without recurrence. In other words, 64.83 per cent. of these cases were endowed with malignant features.

Of the 53 cases in which the disease recurred locally, in more than one-half, or 57.7 per cent., the return took place in 6 months, while after 12 months there were only 13, or 28.8 per cent., and of these there were only 4, or 8.8 per cent., after 2 years. These statements lead to the belief that the chances for the patient are relatively good after the lapse of 2 years, and that the prognosis is all the more favorable as the period of freedom from signs of local contamination prolongs itself. As the latest date of reproduction was 4 years, it may be assumed that the 12 cases which remained well after the lapse of that time were permanently cured. The average date of recurrence was 10½ months, and the total life of these patients from the first observation of the disease to the final report after the last operation was 7 years and 9 months. The number of recurrences, or operations for recurrence, was 1 in 23 cases, 2 in 13 cases, 3 in 7 cases, 4 in 1 case, 5 in 4 cases, 6 in 2 cases, 7 in 1 case, 12 in 1 case, and 22 in 1 case.

INFANTS — THEIR CHRONOLOGICAL PROGRESS — Dr. Stanford E. Chaille, of New Orleans, La., gives (*N. O. Med. and Surg. Jour.*, June 1887) a statistical article on this subject, which is of interest to practitioners, and the details of which we do not believe can be found in any one book. It is an extremely difficult thing to make a perfect synopsis of such a paper, but we believe we have included in the following a note of every important statement or figure. The infants or children selected for study are of the average class—not the exceptional ones:

First Four Weeks of Life.—Cord begins to wither on the 1st, dries up by the 3d, sloughs off about 7th, and cicatrizes about the 10th or 11th day. *Pulse beats* per minute about 140 at birth; 128 at six months; 120 at one year; 110 at two years; 90 to 100 at three years. From birth the *reflex acts*, sucking, crying, sneezing, hiccoughing, yawning, etc., are merely reflex, with little active volition and little perception of external objects.

The senses are incapable of delicate appreciations. For some days, taste, touch and smell are better developed than hearing and sight. But even *taste*, the sense best developed at first, is very inferior to the adult's, and continues so at least to 6th month; babies swallow, without apparent disgust and even with relish, nauseous things. While there is *common sensation*, *touch* is so imperfect that it is probably some months before a baby can appreciate the *place* on its body where it may be touched, and still less the nature of *the thing* which may touch it. Sensitiveness to *odors* is seldom shown before the 5th week. Babies are at first apparently deaf, but, during the first fortnight, susceptibility to sound is usually observed—sudden sounds causing them to start and blink. They take months to learn to appreciate *direction* and *distance* of sound. During 1st week, babies probably distinguish *light from darkness*, but not until 2d week will their eyes follow a candle. In fact, nothing except a light will cause them to fix their eyes, from usually about the 10th to the 45th day. Physiology justifies the belief that the baby must see two images, both flat and upside-down, of every object look at; months are taken to acquire appreciation of the *solidity* and *distance* of visual objects. *Fear* is not usually manifest before the 3d month. Babies usually first smile after 3 weeks of age. At fifteen days old, probably earlier, a feather, passed over the eyes and nose, may cause the eyes to close, nasal contraction, and a frown. Dr. Chaille has trustworthy evidence of one baby, who shed its *first tear* before it was 14 days old, and he has under obserservation a baby who shed its first tear, out of one eye only, on the 8th day; yet this infant never lacked the usual accomplishment of crying. Lachrymal glands usually begin to secrete during 3d and 4th months; the salivary glands during 5th and 6th months. These facts justify the inference that the *pancreas* and other conglomerate glands gain slowly their power to secrete.

One month (30 *to* 60 *days*) *Old.*—Before 40th day, the hands move awkwardly, but voluntarily, to the mouth, but other movements continue to be vague, jerky, purposeless. At 30 to 40 days, *luminous objects* give pleasure. About 5th week, repugnance to some bad *smells* may be shown and at 6 to 8 weeks some odors attract, while others repel. About 5th week, *mouth and tongue* begin to move in crying, instead of this being exclusively laryngeal as heretofore. The first expression of *disgust* has been noted at the 7th week.

Two Months Old.—Begin to acquire *idea of distance;* they less frequently scratch their faces without intending it. At 11 weeks a baby may take a bottle in the right hand, and a week later in the left. At 2 months no appreciation may be shown of ordinary sounds, such as a footstep in the room; and no color be noticed except red. *Anger* may be shown, and there may be a frown, due to mental displeasure. At 2½ months old, a bottle of water, instead of milk, may be refused with an expression of disgust. A genuine laugh is not apt to be observed before the 65th day.

Three Months Old.—Head can usually be held erect when 3 to 3½ months old. About end of 3d month, the distinct color of the skin, whether blonde or brunette, is usually established. Tears are usually shed 3d or 4th month. The hands are voluntarily lifted to the face much oftener; they are stretched out also to near objects, and the arms are held out to the mother. At 3d month, the infant begins to employ *touch*, to take hold of and feel everything. *Sounds*, if rhythmical, are apt to give pleasure. At 3 to 5 months old, babies are found of *brilliant colors* only, and may be amused with some pictures. From 3d to 10th month, *fear* is plainly shown, and is aroused far more through the ear than the eye. When 3 months old, there may be *dreaming*, also *jealousy*, and *anger*, indicated by pushing away things disliked. When 3½ months old, a baby may be amused by covering and uncovering the face. At this age, though usually not until 6 or 7 months old, there may be joyous babblings, but only vowel sounds; and he may distinguish several parts of the body; for instance, if asked, "Where are your feet?" the baby may look at them.

Four Months Old.—Can sit upright and execute a few actions with hands, although he still often fails to seize objects. Use of hands and arms is developed much sooner than use of feet and legs. At 4 to 6 months old, all babies like to be sung or played to, and some even when 1 month old. They do not readily direct their eyes to the source of a sound. They look intently at their own hands or other objects close to them, and are then apt to squint. Fear, *the first emotion manifested*, is plain when 4½ months old; also violent anger, with rush of blood to face and scalp. Darwin observed a very distinct sob on 138th day. At 4½ months old (102d day, in one case), may smile at an image in a mirror, but not likely before 5th month to appreciate that what is seen is only an image. Infants enjoy looking at their own image. Though not usual, there may be evidence that a voice is recognized, and such sounds may be made as ap, pa, mam, ma.

Five Months Old.—Saliva begins to flow on the 6th month, as preliminary to dentition. He has seen it flow freely at the close of the 2d month, without apparent connection with dentition. A baby may attempt to move in time with music when 5 months old, and may associate his own name with himself, and his eye may seek his nurse if her name be called. Further evidence of the dawn of ideas and associated ideas may be manifested by anger, if not taken out of doors as soon as its cloak and hat have been put on.

Six Months Old.—Sits up; arms, hands and fingers accomplish many delicate movements, and playthings are enjoyed. May be induced to swallow disagreeable things, merely by changing the color. Lively music gives more pleasure than grave, sweet music; however, musical education can rarely be begun before the 5th or 6th year. The drum, then the trumpet, are the first instruments of primitive man, and the favorites of children. There may be painful dreams, and also efforts to imitate. There is some comprehension of the meaning and feelings of others by their facial expression—when, for instance, the mother cries, or pretends to do so. Babies respond with evidences of gratification to attempts to amuse them; will stroke the mother's face and babble inarticulate sounds of admiration. They begin to make a series of sounds with the vowel a (long, not short), ai, au, etc. In first efforts at speaking, there is always marked preference for a and other vowels.

Seven Months Old.—Teething generally begins at end of 5th or beginning of 7th month, and terminates about 24th month. If no teeth by 10th or 12th month, the cause is usually found in defective nutrition and sanitation.

The twenty teeth of infancy are usually cut in the following order—viz: Two central incisors of lower jaw when four to 8 months old; two central incisors of upper jaw when 8 to 10; two lateral incisors of upper jaw when 8 to 10; two first molars of upper jaw when 12 to 15; two lateral incisors of lower jaw when 12 to 15; two first molars of lower jaw when 12 to 15; four canine or eye-teeth when 16 to 20; four last molars when 20 to 30 months old.

After 6th month, babies sleep chiefly at night. Usually at 7th and 8th month, they begin to crawl. May be able to shake its head when told to do so; but even at 7¼ months old, it is usually unable to follow with the eyes an object swinging rapidly. At this age the nurse is usually associated with her name. If not at 6th month, then by the 7th month, begin to mumble, m, m, m, p, p, p, which soon becomes mamma and papa.

Eight Months Old.—Usually begins to imitate sounds, and articulate several syllables. Speech is first always of monosyllables, and of these reduplicated; dyssyllables come slowly, about 20th month, and polysyllables still more slowly.

Nine Months Old.—Begin to rise on feet, clinging to some object, and learn to walk. Associate their own names with their image in mirror, and begin to look behind to discover cause of shadow.

Ten Months Old.—A vivid appreciation of odors is manifested from the 10th to the 15th month. May be taught that it is naughty to cry in order to get what is wanted; and also taught, even earlier than 10th month, to make itself understood about messing in its cradle, and afraid to do so. Usually only two or three words can be spoken.

Eleven months (335-365 *days*) *Old.*—Anterior fontanelle should not be as large as a dime; by 20th to 24th month, it ought to be imperceptible; however, complete ossification, which may occur from the 14th month to 3½ years, usually occurs during the 2d year. At 11 months, violent passion may be shown, as by pushing away and beating playthings. Many actions may be imitated, and may taught to be afraid of fire. Gestures, intonations of voice, numerous words and short phrases may be understood, although only a few syllables can be spoken; many animals, unable to speak a word, can yet be taught to understand many words. May attempt before 1 year old to accompany its nurse in singing.

One Year Old.—Most notable progress, during the first year, is the development of the senses and voluntary motion; and, during the second 12 months, in walking and speaking. The dawning of speech is the first decisive indication of development from a lower to a higher animal. Although infants still prefer, at this age, the role of quadruped, yet most of them toddle a few steps by themselves, and before the second year begin to run alone. When a year old, a child is readily deceived about the distance of a sound. Seldom manifest spontaneous affection, as by voluntary kissing, until after one year; but anger with revenge is shown; the anger is often justifiable, yet is not infrequently due to caprice, jealousy, hatred. From 12 to 15 months, children usually manifest that they are heirs of traits which characterize primitive man—viz., self-consciousness, egotism, credulity, impulsiveness, irascibility, jealousy, cruelty, obstinacy, cunning and dissimulation. No one ought to be astonished if children at this age, steal and lie; for instance, steal sugar and deceive about it. Nature's first law is self-preservation, and lying and stealing must *seem* to the child, much oftener and more urgently than to the adult, indispensable to self-preservation. It will do good to prove to him that, although lying may *seem* needful, yet his self-preservation depends really on his truthfulness. This lesson, if enforced, even with switch, will not tend to postpone the development of the moral sense. The first evidence of dramatic art, strongly pronounced in most children, and also of moral sense, is said to have been observed as early as the 13th month. When one year old, infants may imitate the voices of dogs, cats, pigs, donkeys, etc., and may put two words together; do not articulate distinctly until 2 years old.

Fifteen Months Old.—Great progress has been made in motor activity; hand is trained to touch with discrimination; a spoon or glass can be carried to the mouth. The eye and ear can appreciate distance. Frowns and angry voice may be imitated when only 15 months old, and be transmitted thus early from sire to son. Jealousy becomes plainly manifest. Child may be rendered very unhappy by disapproval—as when its mother says, "I am angry." At 15 months, pity, or capacity to feel another's woe, may be manifestod. The child, heretofore exclusively egotistic, may thus evince the budding of altruism. After 15 months old, children begin to *compare*, seeking much more for resemblances than for differences; and will drolly counterfeit the voices, cries and songs of animals familiar to them.

Eighteen Months to Two Years Old.—A spade, mud and sand are highly valued. While such proclivities should not be injudiciously interfered with, propensities demand imperatively judicious interference. Children slowly acquire appreciation of solidity, distance, dimensions, and movements of objects. A strong tendency is shown to imitate adults, and to ask questions. The difference between *one*, *two* and *several* is appreciated; at 2½ years old, a child may count to twelve, but ordinarily, even at three years, they cannot count and appreciate more than 4 or 5; and it takes them from the 6th to the 7th year to get up to 100. There are adult savages, Australians and others, who never can count over 4. At this age a child will usually imitate any word proposed to it with some correctness, but certain letters are apt to be pronounced imperfectly, especially short a (as in hat); the dental aspirates, s and z; and the palatals, d, g, k, l, n, q, r and t. A characteristic of baby articulation is great trouble in pronouncing the difficult letter r, which is learned very slowly. At first l is substituted for r, and then either one for the other.

Two to Three Years Old.—Apt to become sensitive to ridicule, although their sense of the ridiculous is weak under 3 years of age. One case is recorded of an adult, who, on seeing an object, remembered vaguely that he had seen it before, and there was good evidence that this had occurred only once, and when he was 18 months old. However, the general evidence is that there is no memory of anything occurring during the first two years of life. Children up to 2 years of age do not attach meaning to abstract words—such as goodness, wickedness, ugliness; and their reasoning power, from 2 to 3 years old, does not apparently surpass that of adult lower animals, such as the dog. From 2 to 4 years of age, children are transparent egotists, very self-conscious, and almost destitute of moral sense. They appreciate as bad only what is forbidden and punished, and as good what is praised and rewarded. Their parents are their moral law. Even at 5 years of age, their standard of morality is not high, and liable to frequent, serious lapses. How ever, they begin to have pride, and to be capable of being shamed. But even when 1 years old, a child may show some self-retrospection, some self-distrust, and the germ of a wounded conscience—as indicated by such remarks as, "I would like to be always good; why can't I?" and

"I feel that I cannot be good." At 2 to 3 years of age, children, not infrequently, iterate and reiterate the same words without any meaning, and as if imbecile, although not so.

Three Years Old.—Can understand the idea, not only of yesterday, but also of the day before yesterday. The odious tendency to mockery, for instance, of the infirmities of others rarely shows itself until after the age of 3 years, unless earlier developed by reprehensible example. Darwin's child, when 3 years and 23 days old, had good memory of what occurred 6 months before.

At 3, the tendencies still begin and end with self. They are prone to cruelty, delighting, as much as savages, in such jollifications as the conjunction of a tin-pan and a dog's tail. They have little notion of justice to others than themselves; are apt to invent very plausible explanations to account for their own evil deeds, and very improbable explanations for the offensive actions of others to them.

The views above maintained are not in harmony with the popular traditional belief, which assigns to children, in higher degree than to adults, such great virtues as faith, innocence and truthfulness.

Darwin teaches that *hair* is first developed during the fifth month of fetal life; it then grows on the eyebrows and face, and around the mouth as a moustache; at first this fine hair, or lanugo, is longer on the face than on the head; during the sixth month of intra-uterine life the hair thickly covers, with the exceptions of the palms and soles, the whole surface of the body, even the forehead and ears. The forehead, even of the new born infant, is covered with short, fine hair, generally blonde, fine, scanty, and less than a half inch long. The *eyes* of the new-born are always, it is alleged, a dark blue. The eyes generally begin to change color from the sixth to the eighth week. Dalton teaches that "the color of eyes and hair is liable to change during childhood and youth;" that of the eyes is more persistent than of the hair. Hair darkens considerably as it grows older, even up to the time when it begins to turn gray. Topinard says it is common for the hair, and in less degree for the eyes, to become darker during the second period of childhood (7 to 14 years), or later. The eyes and hair darken less in females than in males; the hair of females has less tendency to turn gray; more girls have red hair than boys; dark hair tends to turn gray earlier than hair of other colors. Far more men than women are bald.

About 70 per cent. of dark blue eyes of new-born, will continue at six months to be "light," that is, some shade of blue or grey, and will continue to be "light" also at maturity. The blue eyes of some 15 per cent. of new-borns will become "dark" by sixth month, and so continue. The blue eyes of the remaining 15 per cent. of new-borns become, by sixth month, neutral or "mixed," that is, brownish or green; one-third of these "mixed" eyes become "dark" by fifth year, another third "dark" at maturity, so at this last period of life, "dark eyes will have been increased, at expense of mixed eyes, from some 15 to about 25 per cent. Golden red hair strongly tends to become dark to greater degree than does auburn red hair. For several months hair may not be even one inch long, but when it once begins to grow well it may grow even an inch a month.

Growth furnishes much the best evidence of healthy progress. *Weight* is the most trustworthy factor; next is *height*, and next is *chest-girth*. During first three days there is always loss of weight, which should be regained by seventh day. During the next three weeks there should be a gain of from two to four ounces every week. The greatest gain throughout life is during the first five months, the maximum being usually attained during the second month—from four to 7 ounces weekly; during three succeeding months about five ounces weekly. During remaining seven months of first year, gain should be at least two to four ounces weekly. The gain is less than indicated at times when the infant may suffer, whether from teething or other cause.

New-born baby's weight; average 7 pounds; ordinary range from 5 to 8 pounds; extremes, 3½ to 12 pounds. Average height, 19½ inches; extremes, 16 to 22 inches.

WEIGHT.	AGE.	HEIGHT.	CHEST-GIRTH.
7½ lbs at	1 month	20.5 inches	13.2 inches
9½ “	2 “	21. “	
11 “	3 “	22. “	15 “
12½ “	4 “	23. “	
14 “	5 “	23.5 “	
15 “	6 “	24. “	16 “
16 “	7 “	24.5 “	
17 “	8 “	25. “	
18 “	9 “	25.5 “	
19 “	10 “	26. “	
20 “	11 “	26.5 “	
21–24 “	1 year	27. “	17.2 “
28 “	2 years	32. “	
32 “	3 “	35.5 “	
36 “	4 “	38.5 “	
40–50 “	5 “	40–41 “	21.3 “
60–67 “	10 “	50–53 “	25. “
100–110‘	15 “	61–64 “	30. “
110–150‘	20 “	62–67.5 in	35. “

While from birth to full growth the body elongates three to four times, the *head* only doubles its length. The greatest growth is during the first two years, and by the seventh year its growth is so nearly completed, that Dr. Hammond asserts that the hat which fits a boy seven years old, will fit him when a man. Quetelet's table on the subject does not fully confirm this assertion.—*Va. Med. Mo.*

DILATATION OF RIGID OS UTERI.—Dr. C. P. Wilkinson, of New Orleans, reports in the *New Orleans Medical and Surgical Journal*, the accomplishment of dilatation in a rigid os during an abortion at the sixth month, by means of hydrostatic pressure through a condum. After describing the early history of the case he says:

"No Barnes's dilator that I had ever seen was small enough to enter that cervical canal without employing considerable violence. The convenience of a neighboring drug store enabled me to procure a rubber condum. Shades of the immortal doctor! Was ever the instrument called after his name put to such good use? I introduced a small female catheter into the condum, and tied tightly the open end of the bag close to the handle end of the tube; this I connected with the tube of a fountain syringe. I carefully and gently introduced the catheter, covered by the thin rubber bag, through the cervical canal into the womb, raising the bag of the fountain syringe, which wss now filled with hot water, above the level of the woman; the condom rapidly filled and I had a bag of waters artificially constructed doing most excellent work. I kept the head of water elevated about two feet above the level of the uterus; this would give a pressure of about a pound to the square inch; a steady pressure ample to effect considerable dilatation. The constant pressure, however, proved too painful to be bearable. I lowered the bag, and from this incident took a hint. I raised the bag during a pain, and lowered it during the absence of one. In four hours time I had accomplished a dilatation large enough to admit two fingers into the cavity of the womb. After this the bag was not used. Some considerable delay followed, but finally a foot and leg were hooked down, after which delivery was effected. The lesson that the case teaches is, to me, to use an artificial bag of waters in all cases where the natural one prematurely ruptures. We all know the long first stages following this accident, and we know equally as well the pain and suffering is lengthened thereby. We have just as much right to kick and pinch a woman as we have to allow her to suffer one pain in labor that our skill can prevent."

MEDICINE.

SOME OLD-TIME PRESCRIPTIONS.—PROF. HARRISON ALLEN, in *Med. and Surg. Reporter*.—I propose to call attention to several happy combinations which are known to be especially useful. The first is a formula recommended by Thomas King Chambers in the fourth edition of his "Lectures, chiefly Clinical," London, 1865, page 343.

R	Tincturæ ferri sequichloridi	ʒij;
	Strychniæ hydrochloratis	gr. ½;
	Tincturæ digitalis	ʒj;
	Misturæ camphor	℥x.

Fiat mistura. Sig. Two tablespoonfuls, twice daily

Dr Chambers states that he administered an ounce of the mixture twice a day in a case of anemia in which the eye balls were prominent (exophthalmic goitre). The remedy acts most happily. There appears to be no need of changing it; the iron is adapted to the anemic condition; the strychnia is a tonic to the small blood vessels and to the central nervous system, the digitalis is a heart tonic and the camphor is an antispasmodic. The remedy does not interfere with digestion. With watchfulness and care, its use can be persisted in indefinitely. It is not necessary that all the symptoms included in the above category should be present in order that this remedy may prove efficacious. The recognition of a retarded state of development of the ovaries and associated organs, absence of the secondary sexual characters, anemia, and a thyroid engorgement, is sufficient.

A second formula, perhaps not as elegant as the foregoing, is the following:

℞	Hydrarg. bichlor	gr. iv
	Solve in spirit rectif	℥ ij
	Decot. Cinchonæ	℥ ij
	Mel Rosæ	
	Tinct. Myrrhæ	*aa*℥ij

M. et. ft. gargarisma.

This prescription appears in the Institute of Surgery of Sir Charles Bell. He recommends the combination of ulcerated forms for syphilitic sore throat. I think it would be difficult to improve upon this formula for a mercurial wash in such a condition. In prescribing it the patient should be directed to use a small quantity at a time, and to note its effects; if it prove to be too severe he should add an equal quantity of water to each dose, which might be limited to a tablespoonful. If this prove to be irritating, it may be again diluted until at last it can be easily borne. The patient should be encouraged to use the remedy as far as practicable in the form above given. If he is compelled to begin with the dilutions he can be induced after he is in a measure accustomed to the effects, gradually to return to the original strength of the remedy. This formula was for many years, and probably is yet, a favorite formula in the Philadelphia Hospital. I became familiar with it while serving as resident physician in that institution in 1861. It is surprising how rapidly the symptoms of an ordinary venereal sore-throat subside under its use when the internal administration of anti-syphilitic remedies is at the same time attended to. I have several times substituted other remedies for it (since it is not an elegant preparation), but I have never found anything which can take its place. I also recommend cordially Sir Benjamin Brodie's method of administering bi-chloride of mercury is congenital syphilis, viz: the exhibition of the drug in the presence of Huxham's tincture.

In employing an astringent for a gargle we can receive valuable hints in recalling the way in which our seniors introduced (instead of pure tannic acid) a native substance known to contain the acid. As an example of this form may be named the recipe which is known in Philadelphia as Goddard's gargle. In some formulæ books it appears as Gargarismus Granati Compositus.

℞	Aluminis	ʒij
	Cort. Granati	℥ss
	Petal Rosæ Rub	ʒj
	Mellis	℥j
M.	Aquæ Bull	℥vj

The mixture can be used without dilution, or with an equal quantity of water. It appears to present all the features required by an astringent wash to the throat. If increased strength is demanded it is better to direct an agent to be employed topically by the attending physician.

Another preparation, the use of which can be made to subserve a great number of indications, is Fowler's solution of arsenic. Small doses of this preparation, say two or three drops twice a day for a period varying from one to six months, produce most gratifying results in those states of impaired health which appear to be due to an inheritance of a phase of malnutrition, and which is so evasive that it is difficult to give it a distinctive name. Local diseases engrafted on such a condition will often resist remedies until arsenic in the form of liquor potassæ arsenitis is employed. Pharyngitis sicca, atrophic nasal catarrh, anemia accompanying tertiary syphilis, are sometimes greatly improved, indeed to a degree far greater than it has been in my hands possible with any other agents, by these small doses of Fowler's solution.

ASPIRATION OF THE STOMACH IN ACUTE ALCOHOL POISONING.—A case of poisoning by alcohol in which Mr. George Foy, of Dublin, successfully aspirated the stomach appears to deserve our attentive consideration. At 3 o'clock one morning in November 1884, Mr. Foy was called to see a man who was reported as dying from drink. He found the man dead drunk, from having taken a very large quantity of claret and whisky, lying on a filthy floor, surrounded by a crowd of drunken companions; and was told that for two hours every effort to arouse him from his helpless state had failed. The man was totally devoid of sensibility, his extremities were cold, his face was livid, the pupils were widely dilated, respiration was hardly detectible, there was no pulse, and the cardiac impulse could hardly be felt. Treatment was commenced with opening the median-basilic vein of the left arm. By rubbing the fore-arm briskly, some ink-black blood was got to flow, and the bleeding was not stayed until abut sixteen fluid ounces had been taken. Whilst the arm was bleeding, Mr. Foy pushed the fine trocar of an aspirator through the abdominal wall in an upward, backward, and outward direction from its point of entrance at the sternal end of the eighth rib, and was rewarded with a stream of claret-colored fluid. The heart commenced to beat, the blood-stream from the arm became arched and more full, the pulse was now easily felt, and respiration recommenced. The operator now withdrew the canula, not wishing to empty the viscus by the aspirator, lest it should slip off the tube, which was shorter than was desirable; and washed out the stomach with a stomach-pump. Soon afterwards the man was able to speak. He was put into a warm bed, and the next day was sufficiently recovered to go home. In this instance Mr. Foy saw no other remedy than aspiration. Apomorphine was put aside because sensibility was deadened. The respiration was too feeble to allow the introduction of the stomach-tube. The case appeared suitable for aspiration; and the only risk that caused uneasiness was the posibility of the stomach slipping from the canula—a risk guarded against by withdrawing the instrument sufficiently early. Peritonitis was possible, but hardly probable; and from the position of the gastric blood-vessels the danger of wounding one of them was very slight. The venesection may fairly be credited with having contributed to the recovery, though he thinks the principal agent in saving the life was the aspirator.—*Dublin Med. Journal—Practitioner.*

GASTRIC PAIN.—METHOD OF TREATMENT AT THE MEDICAL DISPENSARY OF THE UNIVERSITY OF PENNSYLVANIA.—The following cases have been selected as types of a class of cases, numerous as they are annoying to the practitioner. The treatment suggested, however, has been quite universally successful, and, though by no means original, deserves recording:

Wm. G., carpenter, aged 41 years. Habits good; always been accustomed to eat much indigestible food. For one and a half years been suffering from severe epigastric pains; worse after eating; relieved by lying on the back; no vomiting; some flatulence; tongue flabby and coated. On examination there was found much tenderness in the epigastrium. He was put on a pill of ¼ gr. silver nitrate and $\frac{1}{12}$ gr. pulv. opii. His bowels were regulated by cascara sagrada. Almost immediately his pain began to subside, tenderness became less marked, and at the end of two weeks he considered himself cured. He received no other drugs except for a short time a mixture of tr. gentian and nitro-muriatic acid. At the present writing he remains well, with still some dyspepsia, but the annoying pain entirely relieved.

Robt. P., merchant, aged 71, married. Good habits. Had always been in the habit of eating cakes and cheese between meals, while attending to his store. For a number of years has had much flatulence after eating, but considered himself well until a year previous to his appearance at Prof. Osler's clinic. Suddenly, in the night, one year before, he was seized with a severe attack of epigastric pain, relieved by morphia; in two or three weeks had a similar attack; neither of these accompanied by vomiting. These attacks were repeated four or five times, when their character suddenly changed. The pain became less marked, but was still present; but now he was attacked by distressing nausea and vertigo. The vertigo was so violent that he would fall. Some of the attacks were accompanied by purging. In the past year he has lost fifty pounds in weight. On examination by Prof. Osler his abdomen was flat, no evident tumor but an unnatural tenseness. A spot of tenderness was found just below the ensiform cartilage. This case was at first regarded as possible gastric cancer; but subsequent developments showed its true nature to be a gastric catarrh with gastralgic attacks. He was put on a powder of bismuth subnit, 10 gr.; soda bicarb., 5 gr.; morph. Sulph., $\frac{1}{12}$ gr. In two weeks he had another attack, but the intervals lengthened, and he is now, a year and a-half after the first visit, apparently entirely well.

The treatment of these two cases is that which is followed as a rule in such cases in the dispensary. It is usually successful. The silver and opium are used in the class of cases without marked flatulence, while the above powder is used where flatulence is a marked symptom.—*Med. and Surg. Reporter.*

NOTES RESPECTING SPECIAL CATHARTICS.—Dr. Henry M. Field (*Journal of the American Medical Association*) calls attention to the following points respecting a few cathartics:

1. The salines do not agree with the aged—they find them too chilling, and a dose of epsom salts, which may operate very kindly upon the young and middle-aged and vigorous, may bring a serious disaster to the old man or woman. A sudden depression of vital energy and the function of calorification thus procured, together with other favoring circumstances, have more than once precipitated the subject into fatal pneumonia.

2. All cathartics are apt to be attended with colicky complications when given to a woman at the epoch of menopause; and especial combination at such time, as with carminatives, should be directed against this painful action.

3. The common domestic cathartic, senna, should never be prescribed bed to the subject of cumulative constipation or of impacted feces; if there be anything answerable to a fecal plug formed in the course of the small intestine or near the valve, on either side, such a peristaltic cathartic as senna will infallibly occasion serious, and even alarming, colic before evacuation can be accomplished; and the same restriction applies to a similar use of an integral dose of calomel.

4. In a case of impacted constipation, in which it is presumed that the bowels are more or less distended with hard, dry, knotty, scybalous masses, nothing works so well as epsom salts, combined, perhaps, with small doses of tartar emetic.

5. In cases of uterine hemorrhage, habitual constipation can best be treated by cream of tartar. This does not induce muscular contraction of either the intestines or uterus, while it reduces temperature and lowers blood pressure.

ETHER IN CARDIAC DYSPNEA.—Ether in small quantities acts both on the respiratory centre and heart-muscle as a stimulant, and in pneumonia the resistance to the passage of the blood from the right side of the heart through the lungs produces distention and palsy of the right ventricle. Under these circumstances dyspnea arising from cardiac failure soon asserts itself, but is relieved if, by the aid of cardiac stimulants, we can enable the heart to overcome the resistance and free itself of the abnormal quantity of blood. It is probable, then, by this double action on respiration and circulation that either in such a case does good; but it is worthy of remark that, as a general rule, less fugacious cardiac stimulants are more desirable, since in the case of ether stimulation the effects pass off as rapidly as they appear. Nevertheless, in those cases in which cardiac dyspnea suddenly becomes alarming it is well to remember that the hypodermic injection of small quantities of ether may bridge over the danger till more constant and equally powerful remedies can be given.—*Med. News.*

ANTIPYRIN AS AN ANODYNE IN LOCOMOTOR ATAXY.—C. W. SUCKLING, M. D., in *Brit. Med. Jour.*—M. Germain See believes that this drug is the remedy *par excellence* for pain, and he has found it efficacious in rheumatism, gout, and in neuralgia. Moreover, he reports that in four out of five cases of locomotor ataxy the pains were removed by the drug.

Lepine has found that antifebrin relieves the pain in this disease.

I have tried antipyrin in three cases of locomotor ataxy, in which the pains were severe, with relief in each instance; in one case with complete abeyance.

A man, aged 48, in an advanced stage of locomotor ataxy, applied to me for relief on account of severe shooting pains in the legs, of almost daily recurrence. I gave him antipyrin in ten-grain powders, one to be taken in water when the pains came on. After taking two powders the pains ceased, and he was free from them for a week, when they returned, to be again checked by a powder. He stated that he had not been so well for twelve months, having been continually in pain. It must be remembered that Althaus, several years ago, recommended salicylate of soda for the pains of locomotor ataxy, and this drug greatly resembles antipyrin in its therapeutic action.

I think that antipyrin will be found to be of great use in the treatment of these hitherto intractable pains.

CARBOLIC ACID IN THE TREATMENT OF VOMITING AND PAINFUL DYSPEPSIA.—The well known anesthetic and analgesic effects of carbolic acid were first utilized in the treatment of vomiting, by Dr. Edward Garroway, of England. He found doses of carbolic acid in some suitable vehicle to allay, as by magic, hysterical vomiting and the vomiting of pregnancy. Drs. Dixon and Beran afterwards employed the same remedy for the relief of some forms of painful dyspepsia; the latter associated with it a certain proportion of the *acetum opii* (English black drops) and in obstinate cases of chlorotic vomiting, in the vomiting of pregnancy, in gastralgia from dilation of the stomach, and from anemic, nervous causes, he reports remarkable success from this palliative treatment. His formula is as follows: ℞. Pure deliquescent carbolic acid, 1 part; English black drops, three parts. Mix. Dose—Four drops in a little sweetened water three times a day, a few minutes after meals.

ARSENIOUS ACID AS A PROPHYLACTIC IN MALARIOUS DISTRICTS.—One of the greatest difficulties encountered in malarious districts, is to find an easy and convenient means of preventing the paroxysms of fever which so often disable artisans and laborers, and which at times render utterly unfit for service whole armies of troops.

Tommasi Crudeli has found, after much study, covering a very large experience, that arsenious acid in doses of one-sixtieth of a grain, has proven the most satisfactory prophylactic. The Greeks, Romans and Arabs of Gaudaloupe, have long inclined to rely upon the juice of lemons, prepared by cutting the lemon in small fragments and boiling it until its bulk has been reduced one-half. It is then squeezed out from the pulp, filtered, and taken cold. The objection to quinine is that its effects are powerful upon the nervous system and transitory upon the bacillus malariæ.

RED DROP IN DIARRHEA.—Red drop as known in Trenton, N. J., is this: ℞. Sol. morphine et ipecac., (Dover's solution) f. ʒ ij; tinct. catechu, f. ʒ v; spts. camphoræ, f. ʒ i. Sig. Take a teaspoonful every fourth hour until relieved.

The advantage of a preparation like the sol. morphiæ and ipecac, is that it can be combined with the vegetable astringents without making a precipitate. It can also be combined with the spts. of camphor. Large quantities of red drop are sold here during the summer, as it is one of the most efficient prescriptions we have to control diarrhea. When used, it should be diluted with a small amount of water.—*Med. Digest.*

THE TREATMENT OF RHEUMATISM.—Dr. George. L. Peabody treats his cases of acute rheumatism with a combination of salicylic acid and iron, the formula for which is as follows:

R. Acidi salicylici, gr. xx; ferri pyrophosphatis, gr. v; sodii phosphatis, gr. l; aquæ, ℥ ss. Give this dose every two hours, until improvement takes place, then less frequently.

TREATMENT OF SUMMER DIARRHEA OF INFANTS.—Notwithstanding the enforcement of sanitary regulations by Health Boards, and earnest and judicious advice given by the physicians, the summer diarrhea continues, and is likely to continue, the annually recurring and fatal epidemic of infants, desolating many families, especially in the laboring class. Since one of the chief factors in causing the disease is the use of improper food, it is necessary for its successful treatment that the diet be of the right kind, properly prepared, given at proper intervals, and in proper quantity. We cannot expect to prepare any food which will surpass in excellence the mother's milk, if she be in good health, be not over-anxious in regard to her infant, have sufficient sleep, and lead a quiet and regular life. But in a large city many mothers, especially in the laboring class, with their manifold household duties and constant and depressing struggle with poverty, find their milk insufficient, so that some substitute for maternal lactation is required. A wet-nurse may supply the place of the mother, if one can be obtained, who has sufficient milk, of the right age and good quality, and who has the proper habits and mental traits. To such an extent are wet-nurses employed in wealthy families, that there is a scarcity of them for families who are in urgent need of their services. For the great mass of infants deprived of maternal lactation through their mothers' ill-health or other causes, the supply of wet-nurses is totally inadequate, and in the laboring class, where cases of infantile indigestion and diarrhea are especially frequent, their employment, on account of the expense involved, is not to be thought of. Therefore artificial feeding is necessary for the vast majority of infants deprived of the breast-milk, and how to feed such infants, as well as those who have reached the age when weaning is proper, is one of the most important problems which can engage the intention of the physician.

The food of infants prior to the age of one year should resemble as closely as possible the mother's milk in digestibility and nutritive properties, and for this reason animal milk, and for convenience cow's milk, must constitute the principal part or form the basis of the food employed. The profession, as well as the laity, are greatly indebted to the labors of renowned chemists, from the late Baron Liebig to Professors Leeds and Vaughan of the present time, for the important aid which they have rendered in the matter of infantile feeding, and largely through their assistance many infants are now preserved in health who a few years ago would evidently have perished from indigestion, mal-nutrition and diarrhea. The most important help rendered by the chemists is, we have said, the artificial digestion of the substances used in feeding, by which the feeble digestive functions of infants are relieved to a great extent of the burden of digestion. The importance of this artificial digestion is seen as regards the change effected in milk. A principal reason why cow's milk disagrees with infants is, that its essential and highly nutritive ingredient, casein, forms large and firm masses in the infant's stomach, curds which digest with difficulty, prove irritating by fermentative changes which they undergo, cause gastric distress and vomiting, and as they descend in the intestines produce colicky pains and diarrhea. Human milk coagulates in flakes, which on account of their small sizes are readily acted on by the digestive ferments, and are quickly and fully digested. By artificial digestion or, as it is designated, peptonizing, the casein, so far as it is not fully digested, forms particles or flakes which are readily digested by the infant, causing no suffering or gastro-intestinal irritation.

But useful as is the peptonizing process for preparing milk, so that it is readly assimilated while its full nutritive properties are retained, it meets a serious drawback as employed in a large city. Milk of the best quality, that which is most suitable for peptonizing, is obtained at a distance, where the pasturage is good and abundant, and in midsummer, when fermentation occurs quickly, milk several hours old when it is received is likely to have undergone some alteration appreciable to the taste so as to impair its quality when peptonized. This is a fact which we frequently notice in tasting milk.

The important advantage is claimed for one of the most recent of the infant foods, to wit, Carnick's Soluble Food, that not only are the feeding, healthiness and cleanliness of the cows, which furnish the 50 per cent, of milk which it contains, under close surveillance, but the milk is peptonized in the country soon after the milking, after which its water is expelled by its evaporation and its nutritive portion reduced to a powder. Peptonized mllk reduced to a powder resists fermentation for a lengthened period, and may be advantageously used in infant feeding months after its preparation as a substitute for fresh milk when the latter is obtained with difficulty. But great as has been the improvement in infant feeding by the peptonizing of milk and the method of preserving it from fermentation by evaporating its aqueous portion, an equally important and useful improvement has been made in the predigestion of the farinaceous foods which are commonly employed with milk. The fact has long been recognized that bland and easily digested farinaceous substances mixed with milk aid in preventing the casein from forming large and firm masses in the stomach by mechanically separating its particles. The proper admixture of such supstances with the milk, therefore, appears to promote the digestion of the latter, while having nutritive properties they aid in the nutrition. But starch is digested with difficulty by young infants. In those under the age of three months, the salivary glands and pancreas, whose secretions are the chief agents in digesting starch, are almost rudimentary. To the late Baron Liebig the credit is due of bringing prominently to the notice of the profession the fact that starch can be digested, so that it is readily assimilated by the youngest infant. According to the degree of change, starch is converted into the form known as soluble starch into dextrine, and by a more advanced change into glucose.—Prof. J. Lewis Smith in *Journal of Reconstructives.*

CLASS-ROOM NOTES.—(*College and Clin. Record.*)—Chest protectors and cotton packing for the chest should meet with every physician's disapproval, for they do no good, and are productive of much harm.

When bromides do not benefit *epileptics*, Prof. Bartholow states it is always well to try picrotoxin, gr. $\frac{1}{10}$ bis die. It is especially indicated in nocturnal epilepsy.

A good *antiseptic absorbing dressing* can be made of common sawdust, as follows:—

℞.	Ammonii chloridi,	gr. viiss
	Hydrarg. chlor. corros.,	gr. viiss
	Glycerini,	f ℥ ss
	Sawdust (sifted)	1 lb.

Misce. Dry before using.

For *diarrhea* coming as a desire to stool after eating, with thin and watery discharges, Prof. Bartholow ordered the following: Two drops of Fowler's solution and six drops of the deodorized tincture of opium three or four times daily. Put on exclusive milk diet for a short time.

For *diarrhea* of three months' duration, characterized by a desire to evacuate the bowels immediately after eating, Prof. Bartholow advises the following plan of treatment: Put patient on a milk diet as far as possible, also—

℞.	Creasoti,	mij
	Bismuthi subcarb.,	gr. x-xv
	Glycerini,	f ℥ ss. M.

SIG.—Ter die, before meals.

In *ovarian cyst*, one means of discovering the side from which it sprung, and the attachment of the pedicle, is to draw the uterus well down into the vagina by a tenaculum, and then pass two fingers into the rectum, and feel high up back of the uterus.

For *dysmenorrhea*, Prof. Bartholow advises the inhalation of amyl nitrite for the attacks, and during the intervals the internal administration of the one per cent. solution of nitroglycerine.

Prof. Da Costa strongly recommends gallic acid in *hemoptysis*, but advises it to be given in doses of gr. xv-xx every fifteen minutes "until the blood turns black." It is of no use whatever in small doses.

In *puerperal mania*, characterized by activity and mental excitement, gelsemium will antagonize the morbid process and bring about happy results.

For flushings and other morbid sensations occurring about the *climacteric period*, Prof. Bartholow prescribed a three-grain pill of iodoform, ter die.

In *constipation* caused by a deficiency of excretion, secretion and muscular power, a capital addition to a purgative pill is physostigma.

Prof. Bartholow speaks quite highly of iodide of ethyl for *asthma*. It should be enhaled from a bottle, being vaporized by the heat of the hand, the patient breathing strongly and deeply; this should be continued, each sitting until a hot, stuffy sensation is experienced in the chest. At times it may cause coughing. Asthmatics should, as a rule, take a light supper, to avert the attack which is usually nocturnal.

Ipecac is also a most valuable remedy in *hemoptysis*; its action is twofold: the hemorrhage ceases with the oncoming of nausea, and when vomiting ensues, the lungs are cleared of the blood remaining in the bronchi and their subdivisions, thus lessening the danger.

For *insomnia* and restlessness of delirium tremens in its first stage, pilocarpine is a remedy which will be found to act remarkably well.—Bartholow.

For *nephrolithiasis*, avoid meats, take systematic exercise, the salts of potassium in lithium, and an abundance of alkaline waters.

Prof. Bartholow insists that in *subacute rheumatism*, no remedy is comparable to Tinct. ferri chloridi, especially if in an anemic subject.

Dr. Hunt, at the Pennsylvania Hospital, stated that he considered the treatment of *internal hemorrhoids* by carbolic acid a good procedure. He uses about four drops each of pure carbolic acid and glycerine, and injects one tumor at a time.

SURGERY.

OPERATIVE TREATMENT OF EMPYEMA OF THE ANTRUM OF HIGHMORE.—In a paper read by Professor Mikulicz, of Cracow, at the last meeting of the German Surgical Society, the indications to be fulfilled in the treatment of abscess of the antrum are clearly stated. In every case it should be the surgeon's endeavor to make an artificial opening into the cavity, and to maintain this opening until suppuration has been completely arrested. The methods which establish an opening into the antrum by the mouth have two advantages: The cavity is thus perforated at a convenient and accessible spot. The surgeon can readily apply his instruments, and the after-treatment can be conducted under the control of both his eyes and fingers. Moreover, the perforation is well situated for the flow of pus, as it is the most dependent part of the antrum. There are, however, certain disadvantages attending the operation by the mouth. Suppuration in the antrum often persists for a long time, it may be for months or even years, and it is necessary to maintain the opening until the discharge has ceased. This is not an easy matter, as there is always a tendency for the opening to contract and close unless a stiff drainage-tube be worn. Free communication between the antrum and the mouth is attended with inconvenience, and portions of food and other foreign material may pass through the opening into the cavity, decompose there, and set up fresh suppuration. In cosequence of these objections to the oral operation, attempts have been made to open up the antrum in another direction. An objection might be made, it is pointed out, to the old operation on physiological grounds. The antrum has not any normal connection with the mouth, but is to be regarded as a pneumatic appendage of the nasal cavity with which, in a healthy condition, it has free communication. If this communication be shut off in consequence of any pathological process, that operation would seem to be the most rational that serves to re-establish the normal condition. The author is opposed to any method of attempting to reach the antrum through the middle meatus. It would, he states, be found very difficult in such attempt to open up the antrum and afterwards to inject the cavity. Besides, the perforating instrument would be brought into dangerous proximity to the orbit, which cavity is separated from the nose by only a thin plate of bone. Again an opening in the middle meatus would be most unfavorably situated for the discharge of a large accumulation of pus. The author advocates an opening made from the inferior meatus. The osseous septum between this portion of the nasal cavity and the antrum is very thick and dense near the hard palate, but soon becomes reduced to the thickness of paper, and can be readily perforated by a stout cutting instrument. For this purpose a short double-edged knife, or rather cutting stylet, set on a curved shank, has been devised. This is introduced along the inferior meatus, until it reaches the inferior turbinated bone, when its point is turned outwards and thrust through the septum into the antrum. The opening having been enlarged by to and fro movements of the instrument, the elongated and curved nozzle of a specially devised elastic bell-syringe is introduced, and the cavity of the antrum is washed out. This operation, which proved successful in two cases reported in this paper, is not likely, it is asserted, to be attended with any difficulty except in cases of abnormal narrowness of the inferior nasal meatus, of extreme hypertrophy of the inferor turbinated bone, or much thickening of the osseous septum between the antrum and the inferior part of the nasal cavity.—*The London Medical Record.*

TANNIC ACID AS A SURGICAL DRESSING.—Dr. T. J. Hutton writes to the *Journal ot the American Medical Association*, that after sixteen years use of tannic acid as a surgical dressing, he is thoroughly satisfied as to its efficiency.

"It forms an excellent dressing in three classes of wounds, viz.:

"1. Incised wounds—applied after the sutures are inserted, or adhesive plaster is on—if the wound does not require stitching.

"2. Small wounds of irregular form and recent occurrence.

"3. Wounds of moderate size in compound fractures. Whenever applicable it excels all other dressings in the following respects.

"1. Convenience.
"2. Cheapness.
"3. Cleanliness.
"4. Efficiency.

"It is always ready. It costs but a trifle. It requires no greasy mixing, measuring, or muddling, and has neither smut nor smell.

"The method of application is simply to keep the wound covered with the powder. Wounds thus treated heal on the average in about one-third the time required for similar ones treated by liquid, oily, or salve dressings. In converting compound fractures into simple fractures by this method, the flesh-wound is often healed in one-twelfth of the time required to heal it by wet dressings of salves that are frequently removed and re-applied."

CORRESPONDENCE.

THE TOLEDO MEDICAL COLLEGE AGAIN.

Editor of Columbus Medical Journal:—Dr. Fisher, of Toledo with myself, resigned from the Toledo Medical College on account of the irregular methods of conducting the Institution. Students without any literary qualifications were admitted without even the formality of an examination, and the same may be said of the final examination, with the exception that they went through a farce of an examination. I can furnish you the *original papers* to prove my assertion, as well as refer you to Doctor Fisher.

The notes given for incorporation are in part withdrawn and the balance are worthless, as the makers are men entirely without rating. Doctor Fisher can give you the facts.

There are too many rotten institutions which must be dealt with sooner or later, and the more expeditiously the work is completed the better for the profession and laity.

By giving this publicity in your Journal you will inaugurate a good work.

ALFRED W. CAREY, M. D.,
Caro, Michigan.

WOOSTER, O., July 26, 1887.

Gentlemen:

Your JOURNAL has always been welcomed to my table since its first publication; and I have thought enough of it to have all the numbers bound. I am very respectfully,

J. H. TODD, M. D.

MOONS P. O., FAYETTE CO., O., Aug. 3, 2887.

Hann & Adair:

I have taken your JOURNAL eight years, and in all that time there has not appeared a single copy but that was well worth double the investment, and when I desire to discontinue, I'll let you know. It is well worth substantial patronage. Respectfully yours, &c.,

A. A. HYER, M. D.

SOMERSET, O., July 25, 1887.

Messrs. Hann & Adair, Columbus, O.:

MY DEAR SIRS—I am much pleased with the JOURNAL, though I practice mostly Homeopathy; yet I consider your JOURNAL the best for the money, in the way of general medical news, of any publication for one dollar a year. Very truly yours,

R. B. WOODWARD, M. D.

EDITORIAL DEPARTMENT.

J. F. BALDWIN, M. D., Columbus, - - - - EDITOR.

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HANN & ADAIR, Publishers, Columbus, O.

INTERNATIONAL CONGRESS—GENERAL PROGRAMME.

First Day—Monday, September 5.

The Congress will assemble at Albaugh's Opera House at 11 A. M., and will be formally opened by the President of the United States, to be followed by a short address of welcome by the Secretary of State; Address by the President of the Congress; Report of Secretary-General and Chairman of Committee of Arrangements. Adjourn at 1:30 P. M. From 3 to 6 P. M., meeting of the Sections at their respective halls. Evening *conversazione* at U. S. Pension Hall from 8 to 11 P. M.

Second Day—Tuesday, 6.

Meeting at 10 A. M. at Albaugh's Opera House. General Address by Drs. Flint and Semmola. Sections will meet at 11 A. M., and adjourn at the same hour with Congress at 1 P. M. In the afternoon the Sections will meet from 3 to 6 P. M. In the evening it is expected that a reception will be given by the President of the United States, and the Corcoran Art Gallery will be thrown open to the members and their families.

Third Day—Wednesday, 7.

The Congress will meet at 10 A. M. General Addresses until 1 P. M. The Sections will meet as usual at 11 A. M., and adjourn at 1 P. M. Afternoon meeting of the Sections from 3 to 6 P. M. Evening reception to the members and their families by the citizens of Washington.

Fourth Day—Thursday, 8.

General meeting at 10 A. M. Addresses, if not previously delivered. Meeting of the Sections at 11 A. M.; adjourn at 1 P. M. Afternoon, Sections meet from 3 to 6 P. M. General reception buffet banquet at U. S. Pension Hall from 8 to 11 P. M.

FIFTH DAY—FRIDAY, 9.

General meeting at 10 A. M. Adjourn at 11 for visit to Mt. Vernon.

On Sunday or Monday, the day not yet determined upon, an excursion train will leave Washington with the foreign members and their families for Niagara Falls.

RAILWAY RATES TO WASHINGTON.—The Railroad Associations which have already agreed to make a reduction of fare for members of the Congress and their families on the roads under their control are:

The Trunk Line Association.
The Central Traffic Association.
The Newport News and Mississippi Valley Company.
The Southern Passenger Association.

These cover the greater part of the territory east of the Missouri and Mississippi rivers. The whole list of roads controlled by these Associations is too large for publication, but members can obtain all the necessary information by application to the railroad agent at the starting point. It will be required to pay full fare to Washington, and a return will be allowed for "one-third the highest limited fare" on the Association's certificate. It will be necessary for these certificates to be procured before starting, and have upon them the receipt of the railroad agent for the full fare to Washington. Members intending to attend the Congress should, as soon as possible, make application to the undersigned for blank certificates of the Association over whose roads they intend to travel, and the blanks will be forwarded at as early a date as they can be obtained. A separate certificate will be required for each person.

Address, J. W. H. LOVEJOY, M. D.,
Chairman Transportatiou Committee.
No. 900 Twelfth Street, Washington, D. C.

It is not generally understood that "the Congress will consist of such members of the regular medical profession as shall have registered and taken out their ticket of admission, and of such other scientific men as the Executive Committee of the Congress shall deem desirable to admit. The dues of membership for residents of the United States will be ten dollars ($10.00): There will be no dues for members residing in other countries. Each member will be entitled to receive a copy of the Transactions of the Congress when published by the

Executive Committee." It will be noted that no delegates of State or local societies are recognized, but all members of the regular medical profession may receive tickets of admission upon paying ten dollars and entering their names upon the roll.

AT THE quarterly meeting of the Illinois State Board of Health, held July 8, 1887, the following resolution, offered by Dr. Clark, of the board, was adopted: *Resolved*, That the phrase, "medical colleges in good standing," in the first section of the Act to Regulate the Practice of Medicine, approved June 16, 1887, is hereby defined to include only those colleges which shall, after the sessions of 1890–91, require four years of professional study, including any time spent with a preceptor, and three regular courses of lectures, as conditions of graduation, and shall otherwise conform to the Schedule of Minimum Requirements heretofore adopted by the board.

ANOTHER PHASE OF THE EXPERT FEE QUESTION.—Physicians, especially the older ones, are frequently called upon by applicants for pensions to make statements as to their health previous to entering the service, etc., etc. These statements are always given cheerfully, and, so far as we have learned, free of charge. But at a later stage of the pensioning process, along comes a government examiner, who tries to find evidence against the applicant. He seems to try his best to find some flaw in the case, and in so doing interviews the physician, of whom he asks scores of questions, relevant or irrelevant, candid or deceitful, and whose time he consumes to the extent of one or two hours; for all of which no fee whatever is paid.

Dr. J. U. Heckerman, of Tiffin, was recently cited to appear before the United States Court, at Columbus, for refusing to give testimony in such cases without any compensation from the government. He came, but when he found that he was helpless, that there was no fund from which to draw, but that a special act of Congress would be necessary, he very naturally weakened and testified.

The Seneca County Medical Society adopted a series of resolutions on the subject, endorsing the action of Dr. Heckerman and calling for the necessary legislation to secure to physicians suitable compensation for services rendered.

MALPRACTICE SUIT.—Drs. R. Harvey Reed and J. W. Craig, the well-known surgeons of Mansfield, have just been acquitted of the charge of malpractice brought against them for amputating a young man's foot that had been run over by the cars. The jury was out only long enough to formulate their verdict. Professional jealousy, as is usually the case, seems to have been at the bottom of the prosecution.

The defendants had as witnesses the following gentlemen besides themselves: J. H. Craig, W. H. Race, J. W. Hamilton, F. C. Larimore J. P. Cowan, P. H. Clark, Proctor Thayer and Solon Marks. They all swore that amputation was the only proper thing to do, and their testimony was unshaken by cross-examination. A correspondent has furnished us with the following synopsis of the testimony offered by the witnesses of the prosecution:

	DIRECT EXAMINATION.	CROSS-EXAMINATION.
Dr. Geo. Mitchell	All wrong to amputate.	Just the right thing to amputate.
Dr. W. E. Loughridge	No excuse at all for amputating.	Of course I would amputate.
Dr. D. V. Ireland (Homeopath)	Bad surgery to amputate.	Good surgery to amputate.
Dr. A. E. Keyes (Homeopath)	Amputation all uncalled for.	Amputation called for without question.
Dr. A. V. Patterson	Foot was not run over, and no need of amputation.	Foot was run over, and amputation necesessary.

ON THE occasion of the ninth convocation of the International Medical Congress, at Washington, a large and capable staff of medically-educated stenographic reporters, under the supervision of a responsible chief, will be in attendance, in the interests of *The Medical Record*. They will prepare a condensed report each day of the proceedings of the general sessions and various sections, which, with graphic accounts of the incidents, and interesting items of news and gossip, will each day be telegraphed to the publication office of *The Medical Record*, in New York, and immediately prepared by the editorial staff for publication in its current issues.

Sander & Sons' Eucalypti Extract (Eucalyptol.)—Apply to Dr. Sander, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Greifswald.

OHIO is suffering from an epidemic of malpractice suits. The melancholy thing about these and all other similar suits lies in the fact that they are aided and abetted by other members of the medical profession. United we stand, divided we fall.—*Detroit Lancet*.

CORRECTION.—In the valuable report by Dr. Sharp, in our last issue, the word *sewerage* occurs several times where the word *sewage* should have appeared. Although Webster makes the former word include the latter, later writers make a technical and very desirable distinction. The error, in this instance, was the compositor's; the "copy" was correct.

THE REPORTS by Drs. Sharp and Wise, which we published last month, are taken from advance sheets of the Report of the State Board of Health, kindly furnished us by the Secretary.

Sander & Sons' Eucalypti Extract (Eucalyptol.)—Apply to Dr. Sander, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Griefswald.

YOUNT'S DOUBLE SLIDE WEDGE END RECTAL SPECULUM.—We desire to direct the especial attention of our readers to the inventions of Dr. Yount, in this issue.

OBITUARY.

Dr. A. C. Miller, of Cleveland, O., died suddenly in that city on the evening of June 21. He was one of the most prominent members of the profession in the State. He was born in Holmes County, Ohio, September 7, 1832. His early educational opportunities were but meagre, a misfortune he always sadly regretted. He graduated at Starling Medical College in 1861, and in 1868 took a degree at Bellevue. During the war of the Rebellion he served as surgeon, occupying several responsible and arduous positions. He practiced medicine for a number of years at Orrville and removed to Cleveland in 1875, where he was one of the leading men in the reorganization of the faculty of the medical department of Wooster University. As a lecturer he was always popular with the students.

Although Dr. Miller appeared robust, he had suffered from nervous trouble during the last eight or ten years of his life. His sudden death was attributed to paralysis of the heart.

REVIEWS AND BOOK NOTICES.

The Physician's Dose and Symptom Book, containing the doses and uses o all the principal articles of the Materia Medica and officinal preparations, arranged in alphabetical order: also weights and measures, abbreviations, administration, incompatibles, prescription-writing, poisons and antidotes, treatment, symptoms, etc. By Joseph H. Wythe, M. D., Professor of Histology and Microscopy, Cooper

Medical College, San Francisco. Seventeenth edition; completely rewritten and enlarged; pp. 266; 12mo.; $1. P. Blakiston, Son & Co., Philadelphia. Columbus: A. H. Smythe.

The title-page gives an excellent idea of the character of this book, whose popularity is evidenced by this being the seventeenth edition.

A Text-Book of Pathological Anatomy and Pathogenesis. By Erest Ziegler. Translated and edited for English students by Donald Macalister, M. A., M. D. Three parts complete in one volume. Octavo, 1118 pages, 289 illustrations. Price, extra muslin, $5.50; sheep, $6.50. New York: William Wood & Co.

The work, as now presented, consists of three parts complete in one volume; the several parts including sections which treat on such practical subjects as: Malformations, Anomalies in the Distribution of the Blood and of the Lymph. Retrogressive and Pregressive Disturbances of Nutrition, Inflammation and Inflammatory Growths, Tumors, Parasites, Special Pathological Anatomy of Blood and Lymph, of the Vascular Mechanism, of the Spleen and the Lymphatic Glands, Skin, and Serous and Mucous Membranes, Alimentary Tract, Liver and Pancreas, Urinary Organs, Respiratory Organs, and Nervous Systems. The treatise is exhaustsve in the manner in which its numerous details are attended to. It is abundantly illustrated with excellent wood cuts. The author has wisely considered it best to omit theoretical discussions almost altogether. It is a book to be used as a companion for the text books on Medicine and Surgery. An excellent index serves as a valuable help in looking up any given subject.

A Compend of Electricity and its Medical and Surgical Uses. By Charles F. Mason, M. D., Assistant Surgeon U. S. Army. With an Introduction by Charles H. May, M. D., Instructor in Ophthalmology, New York Polyclinic. Cloth. Price $1.00. Philadelphia: P. Blakiston, Son & Co., 1887. Columbus: A. H. Smythe.

This little volume is one of the Medical Briefs, a series of short, concise compends for the medical student and practitioner.

Electricity occupies a very peculiar position in therapeutics, some physicians regarding it as a most important agent in almost an infinite variety of conditions, while others think its value, except as regards its mechanical and chemical effects, depends entirely on its favorably influencing the imagination of the subject. However this may be, an exhaustive study of electricity is a matter of much labor, and physicians who desire to be informed of the application of the agent, without perusing an elaborate treatise on the subject, will find this little book very welcome.

COLUMBUS

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COMMUNICATIONS.

AMPUTATION IN OSTEO-CANCER OF THE LIMBS—WITH CASES.

S. F. FORBES, M. D., TOLEDO.

A paper read before the Ohio State Medical Society, June, 1887.

There is a surgical maxim which forbids amputation of a limb in the continuity of the long bones in cancerous diseases, but requires that the operation, if done at all, shall be done at the joint above the seat of such disease.

So good an authority as Holmes' Surgery (Edition 1882), uses this language: "If the disease can be clearly made out to be cancerous, the whole limb, including the entire bone which is the seat of the disease, ought to be amputated. When the tumor is situated in the leg, this is a matter of comparatively little moment." * * * "But if the tumor affect, as it commonly does, the lower end of the femur, the question becomes a grave one, since amputation at the hip-joint must be performed if the disease is clearly diagnosed as being cancerous."

To show that amputation at the hip-joint is not always necessary in cancer of the lower end of the femur to successful recovery, and to urge that amputation of limbs may be done in the most desperate cases of this disease with fair hope of temporary or lasting cure, is the scope of this paper.

In speaking of bone cancer I do not mean to include osteoid sarcomas—those tumors having bony or calcified strata or points within their radius, nor yet to malignant growths from bone, but rather to cancerous diseases and destruction of the shafts of the long bones themselves. For the former, incission will often be the proper and efficient remedy, but amputation is the only suitable treatment for the cancerous destruction of the bones themselves.

The late Dr. Gross made this class of diseases a special study, and his division of them, as to their origin, into central and peripheral, and as to their histological characters into spindle celled, round celled, giant celled, and so on, bears evidence of great study and research, and as being withal scientifically correct.

But neither the origin nor the anatomical characters of these diseases are within the purview of this paper, only their clinical phases. Indeed, speaking of the former, Holmes says: "It has not been possible to arrange these various growths in such a manner that a given anatomical shall correspond with an observed clinical character, or to deduce the clinical history from the ascertained anatomical structure, or, on the other hand, to predict, with any approach to certainty, from a recorded clinical history what the microscope will reveal as to their histological characters. From this it must be manifest that we are not yet in a position to classify tumors, either on the anatomical or on the clinical basis, in such a way as to make the classification perfect for our practical guidance."

To speak of these diseases as they are met by the busy practioneer in his daily rounds, and to offer some suggestions as to their treatment, is what is here intended.

A word as to symptoms: Bone cancer "is a rapidly growing enlargement, generally attended by lancinating pains; sometimes semi-fluctuating, the skin at first pale, with numerous tortuous veins, soon becomes brown or bronzed and eventually involved in the disease." The softness is so deceptive in many of these cases that the physician is certain that abscess exists, and punctures the tumor only to find some bloody serum escape, and then, for the first time, the thought of the malignant character of the disease comes upon him. Add to these local symptoms the general symptoms of the constitutional affection, and the surgeon will rarely err as to the malignant character of the disease before him.

The treatment of bone cancer of the limbs has heretofore been settled into expectant, with internal remedies, excision, and amputation.

As to the first mentioned course, only quacks, or the most timid and unlearned of our profession, follow it; as it is waiting by the side of a fellow mortal as he sinks, usually in great suffering, into an early grave.

Excision is only proper in malignant tumors of the bone where the main shaft and the soft parts are not involved, a fact which can rarely be known except by an operation.

Hence it follows that amputation is all that offers permanently favorable results in true cancer of the bone, and, alas, that is by no means certain.

The following four cases are narrated to sustain the views here advanced:

Case 1st. James L., a lad about fifteen years of age, was seen by a number of physicians, the writer included, in consultation, in the year 1882, at the request of the attending physician and the family, with a view of amputation of the thigh in its upper third. The symptoms narrated above were all present; the pain was especially severe. Emaciation was becoming quite marked, but there was no open sore, nor were we able to detect any great affection of the inguinal glands; and yet it was quite unanimously decided that amputation was not proper, and it was not done. The reasons guiding us to this conclusion were, that we were fearful in the first place that the patient might not sustain the operation; and secondly, that if he did, the disease might return again. And thus we left him in a sort of undecided, I may say cowardly, manner, to go down amidst great suffering to an early grave, which he did in three or four months.

Case 2d. Miss E., a maiden lady about thirty years of age, seen by myself in 1883 in consultation with her attending physician. Upon her right arm, upper and middle thirds, was a large and painful tumor having the above-described characteristics of bone cancer. Although the skin was affected about the middle of the arm, yet there was no sore, and the condition of the glands could not well be made out. In my judgment there was healthy tissue enough left that could have been obtained from the vicinity of the shoulder to answer as flaps had the amputation been made at the shoulder joint; and yet I rather reluctantly acquiesced in the decision of the lady herself, her friends and physician, that no operation should be made. And thus this poor woman duly took her place in the silent chambers of the dead in about five months, having suffered horribly during the latter days of her life.

Case 3d. Mrs. S., a married lady, about twenty-five years of age, mother of three children, the youngest seven months old, which she was nursing, was seen by myself first in September, 1883. A large tumor occupied the right limb from the knee to the upper third of the thigh. It was very painful, and there were all the symptoms described above of bone cancer. I learned that the patient was in the care of an irregular, and that he had attended her in the confinement and since. She was taking enormous doses of opium, with the effect of only partially relieving her sufferings. There was a small opening in the skin on the outer side of the thigh, made by her attendant a week before my visit, who told her she had enormous abscess of the thigh, which he would cure by his puncture (although she had remained in bed since her confinement seven months before). He obtained only a little bloody mucus, and a small fungus now protruded from the wound. The patient was greatly emaciated, and would evidently die in a few weeks. The diagnosis was easy in this case, and I at once resolved to offer her the only chance of a recovery, through an amputation of the thigh as near the body as it could be made without disarticulation at the hip joint. Both herself and friends decided to have the operation, and the woman was put upon a generous diet, tonics, and ordered to wean the child. In one week the operation was made, as near the body as would permit the use of the Esmarch rubber cord. No blood was lost, no shock was experienced, or scarcely none, and the woman went forward to recovery in the most rapid manner. At no time during the little reactionary fever which followed the operation did the temperature exceed 100°, and the stump was entirely healed by the eleventh day. From the hour of the operation the patient expressed herself as being comparatively free from pain. This woman soon became well and strong, and useful in her family, but in the fall of 1885, she contracted lung disease, and died in a few months of consumption. Nearly all the adult members of her family are dead of the same complaint. Up to the hour of her death there was not the slightest symptom of a return of the cancerous disease, either in the stump or any part of her body.

Case 4th. In July, 1885, I was called to a neighboring village to see Mr. V., a young man about twenty-two or twenty-three years old, suffering from an enormous tumor of the knee and right thigh, as far as the upper third. As in the previous case, the patient had been in the care of an irregular for about a year and was getting steadily worse. The limb was exactly twice the size (near the knee) of the other, and presented at one view a most perfect picture of malignant disease. The diagnosis was easy and rapid, and I told the patient and his friends at once that amputation, immediate amputation, was all that could be done. They accepted. On the second day thereafter I removed the limb in the upper third of the thigh, having barely room between the trunk and the flaps for the application of the Esmarch rubber cord. There was considerable hemorrhage, owing to the numerous small arteries which studded the flaps. There was not much shock, but considerable exhaustion, owing to the loss of blood and the extreme heat of the weather which prevailed at that time (July 16th). However, the patient reacted well, and went forward to perfect recovery in rather less time than usual after such operations. Up to this time, June 15th, 1887, the patient has continued entirely well, and free from any return of the disease.

Of the foregoing four cases, two were left without amputation, and promptly died; while the two others, which were in my judgment in a worse condition as to chances of recovery through an operation, were operated upon and both got well.

The lesson of even these four cases is to me that in all cases of extensive carcinomatous disease of the limbs—amputate: except where there is almost an absolute certainty that the patient cannot survive the operation, or the glands and general system are so permeated with the disease that death will follow from this cause in a short time.

One thing surgeons should bear in mind when deciding upon the advisability of amputation in those desperate cases, where the patient has been a long time affected, and the limb very extensively diseased; and that is, that the system has already become accustomed to the loss of the limb, so to speak; that it is dead already, and serving no purpose in the economy, but only acting as an irritant, and its final, formal separation by the surgeon's knife creates no shock (when done without loss of blood), and relieves the body of an irritant (and a poison even later), which slowly but surely drags it into the grave.

Doubtless all surgeons are aware of this fact, but few attach to it all the importance it deserves.

Another fact may be taken as proven, I think, by the results in the operation upon the cases reported: and that is, that it is not always necessary to go to the joint above the disease for the point of amputation; a fact of vital moment. For instance: I do not believe that either of the above patients operated upon could have withstood amputation at the hip joint, but were able to bear amputation in the upper third of the thigh, where the shock is much less, and where the hemorrhage can always be kept within bounds.

I believe it would be better to make this final operation in cases where there was quite a reasonable certainty that that the disease would not be cured, than to let the patient go down to death without making any attempt to stay the dread disease. And for two reasons: 1st. That suffering is allayed, life is lengthened, and time and strength gained so that amputation at the hip joint may afterwards be done, if thought advisable; and 2d. When a return of the disease does take place after amputation it often seizes upon some internal organ, where death is less painful and less shocking than the hideous ulcers which take place upon the external surface.

Of the exact origin and histological characters of the two cases above reported which were operated upon, I am unable to speak—but presume, as there was no return of the disease, that they were of the peripheral variety, as this is the kind which authors admit may not always reappear. As no microscopic examination was made in either case I am unable to say whether the variety was spindle-celled, round-celled or giant-celled, and can only speak of what was observed on a free dissection of the limbs after their removal. They were so nearly alike that a description of one will answer for both.

On making a long section of the limb in front, the knife sank after penetrating the outer envelope of skin, etc., into a softened mass of heterologue or foreign structure, or rather material, semi-fluid, reddish-brown in color, and there was entire loss of the end of the former, including the articular surface. Four or five inches above the joint, broken and disconnected pieces of the shaft were found, and still above the bone in situ; and at the point of section it appeared healthy. The patella was extensively diseased, indeed almost gone, but the upper end of the tibia was not extensively affected. In one word, the whole lower third of the thigh and much of the middle was transformed into a diseased mass having no resemblance to a natural limb. Of course walking would have been wholly impossible, and was not attempted for many months before the operation.

In conclusion, I have only to say that many cases similar to the above are left to die without an operation, as was the fact with the first two reported; and I believe it is our duty to operate in all cases like the four reported. We cannot increase the ratio of death by it, for they will all die anyway in a short time, amid great suffering; but we shall certainly increase the number, not only of permanent recoveries, but of temporary recoveries — that is, lengthen the days of the patient — and we all know that life is but an increase in the number of days. Furthermore, we shall lessen the suffering in all cases of this terrible malady — a fact that no surgeon or physician should ever forget. If we cannot extend life into the fullness of time set for mankind, but can protract it for a few months or years, and render it more bearable and happy, it is surely our duty to do it at all times, and upon all occasions.

HOMEOPATHY, AS REGARDED BY ONE OF ITS LEADERS.—Jousset, of Paris, is unquestionably one of the lights of homeopathy on the Continent of Europe. His recently published *Lecons de Clinique Medicale* is in some respects a model of its kind. According to this authority, the homeopath of to-day no longer affirms the mysterious potency of the globule, or the all-sufficiency of the doctrine of similars, but claims to be, in the true sense of the word, eclectic.

"Hahnemann and his pupils pretended that homeopathy was the *whole* of therapeutics. This is a complete misconception of the case — homeopathy is but a *part* of therapeutics; this is a truth which has cost us many execrations from men in our own ranks, but is now held to be indisputable.

"The fact is, homeopathy can not take the place of *palliative* medication; nor of *surgical* medication; nor of *antidotal* medication in cases of poisoning; nor of *parasiticide* medication wherever demanded; nor of medication by *mineral waters*, which often cures where other modes of treatment fail; nor of *hydro-therapeutic* medication; nor of medication by electricity; nor even altogether of *empirical* medication. Homeopathy is not everything, and liberal medicine must include all collateral modes of treatment."

Jousset repudiates the allegation that homeopathy is a *sect*, and affirms that it is simply a branch of medicine which has to do with the therapeutics of certain internal disorders, and not even all of these are amenable to treatment by the law of similars (for example, helminthic diseases). The same writer, who seems to have some following in France, and may be said to represent the advanced thought of his school, gives some pretty hard blows at the advocates of infinitesimal doses, who, he intimates, have brought discredit upon homeopathy, and affirms that "the school of high dilutionists is losing ground every day, and in France, as in Germany and America, the general tendency is to employ the low dilutions."—*Boston Med. and Surg. Jour.*

PHYTOLACCA DECANDRA.

G. A. COLLAMORE, M. D., TOLEDO, OHIO.

A paper read before the Ohio State Medical Society, June, 1887.

This is the ordinary poke weed of our swamps and old fields. I shall confine myself to a brief notice of its therapeutic uses, so far as known.

In the United States Dispensatory it is described as having emetic, purgative and narcotic properties. In over-doses, it produces violent vomiting and purging, and even convulsions. It has occasionally caused death, the symptoms being violent purgation followed by coma. It is also classed as an alterative, which is a convenient term of expressing our ignorance of its therapeutical action. It has, no doubt, a powerful action on the nervous system. It is used as an ingredient of various medicines against rheumatism, syphilis, and other so-called blood disorders.

"Dr. Biggers, of La Grande, Oregon, (New Remedies, July, 1873,) states that he has found the fluid extract of phytolacca an excellent remedy in inflamed and painful mammæ, having frequently employed the remedy, and *invariably with success*." (Italics mine.)

The immediate incitation to the preparation of this paper was the reading in a medical journal some time since a discussion on the proper treatment of inflammation of the mammæ. Turpentine stupes were recommended by one, fomentations with ammonia by another, compression by bandages, by adhesive plaster, by rubber bandages, by others, aconite, belladonna and other drugs internally, but not the least mention of poke-root. And yet it is no new remedy. I have used it for the past fifteen years; I have seen mention every now and then of its valuable properties in journals and elsewhere, and I desire to call your attention to its great usefulness in these cases, if by chance there are any here who are not familiar with it.

I know of nothing more disgusting and exasperating to the physician or more distressing to the patient than the occurrence of suppuration in the puerperal mammæ. After days, perhaps weeks, of pain, fever, sleeplessness, anorexia, mental anxiety and physical torment, pus is formed more or less deep in the gland, the knife is applied, the breast is excavated into abscesses or riddled with sinuses, months elapse before healing is complete, the lacteal function is destroyed and the breast is wrecked and ruined. The experience of all here present will declare that this is no fancy picture. *Haud inexpertus loquor.* It will be conceded that it is for the interest of physician, nurse, and nursling, for every reason, mental, physical, and esthetic, to preserve the integrity, the function, and the beauty of the female breast; and that any remedy which can be relied upon to abort, subdue or avert mammary inflammation should be widely known and thoroughly tested. That remedy I claim we have in the phytolacca. With reference to it I can reiterate the assertion of Dr. Biggers that for the past fifteen years I have found the "phytolacca an excellent remedy in inflamed and painful mammæ, having frequently employed it and *invariably with success.*"

As ague is suggestive of quinia, as I have never had a case of eczema which I could not cure with arsenic, so I have never failed to subdue puerperal mastitis by the use of the poke root.

Its exact physiological action is somewhat uncertain, but it evidently exerts a powerful inhibitory influence on mammary hyperemia, probably by its action on the nervous system, especially the vaso-motor nerves. I have never experienced its emetic, cathartic or convulsive action, though I have frequently prescribed it in full, if not in large doses, but its narcotic effects have been often noticed. It is no uncommon thing for the patient to ask if there was not laudanum or other opiate in the medicine administered. As we cannot explain the action of quinine suppressing malarial manifestations, or of arsenic in affections of the skin, so we must be content to accept the fact of the potent influence of phytolacca in mammary inflammation as a specific action of the drug.

Its remarkable properties in the above-named affection have suggested its use in the inflammation of similar or allied glands, and I now usually employ it in cases of orchitis or epididymitis, in which cases the pain and tenderness rapidly subside, though, as I use other local remedies, I do not know how much of the effect is to be attributed to the drug in question.

Reasoning from analogy it would seem that this might prove a useful medicine in inflammation of other glands, as the lymphatic, etc., but I am not aware of its having been employed in that way, unless its use in syphilis may be so construed.

In conclusion I wish to say a few words as to the preparation of the medicine to be employed. You are familiar with the remark of the man who asserted that there was no *poor* whisky, although some might be better than others. My experience has been that all the fluid extracts which I have prescribed have possessed more or less therapeutic virtues. But there is a wide difference in potency in different manufactures. So I have for some years ceased to *prescribe* the poke-root. I keep in my office a reliable preparation of the drug and dispense it as required. I have ordered as much as a teaspoonful of the fluid extract — procured from a drug store — every four hours, without producing any more powerful effect than I now gain from ten drops of a reliable preparation. It is important and necessary to push the remedy in urgent cases to physiological tolerance, though I have never seen any ill effects, in fact, no effect, outside of the subsidence of the mammary inflammation, except a tendency to somnolence.

I also employ the medicine externally, rubbing it into the gland frequently, or applying it on a cloth, and in many cases this appears to add to the efficacy of the medicine.

Finally, gentlemen, the next time you encounter a case of puerperal mammitis, bear in mind the virtues claimed for phytolacca and make a trial of it in the manner above indicated, and it is my opinion that you will not be disappointed.

WHAT IS MODERN SPIRITUALISM?—This question has perplexed many honest people and not a few dishonest ones. At best it has seemed an unknown world of vast impossibilities. Some time since the late Henry Sebert, of Philadelphia, left to the University of Pennsylvania $60,000 to found a chair of Philosophy on condition that the University would lend its name to the inquiry into spiritualism. In pursuance with this condition the University appointed a commission as follows: Dr. Joseph Leidy, George A. Koenig, Prof. of Chemistry, Rev. George S. Fullerton, Professor of Mental and Moral Philosophy; Coleman Sellers, civil engineer; Dr. S. Weir Mitchell, Dr. William Pepper, Prof. Robert F. Thompson and Dr. Horace Howard Furness, one of the trustees of the University. This committee made an exhaustive examination of spiritualism, and affirm that it is made up of equal parts of humbug and jugglery, calculated to deceive only the credulous and the feeble minded. They say they did not discover a single novel fact, and are forced to the conclusion that spiritualism, as far at least as shown to them, presents the melancholy spectacle of gross fraud, perpetrated upon an uncritical portion of the community. In spite of this report spiritualism will continue its baneful work so long as the credulous and dishonest exist.—*Detroit Lancet.*

PLAIN POINTS FOR GENERAL PRACTITIONERS RELATIVE TO THE FITTING OF GLASSES.

BY J. W. WRIGHT, M. D., COLUMBUS, OHIO.

Notwithstanding the perfection which has been attained in a knowledge of the irregularities in the *refraction and accommodation* of the eye, yet a greater interest should be had by the general practitioner in a subject which has so much to do in augmenting the functions of one of the most important organs of the *special senses.*

There certainly seems to be a want of concern among physicians generally of those affections attributable to defects that are capable of correction with the aid of glasses, and too often they are considered of such insignificant importance as to be referred for correction to the jeweler, who makes some pretensions as an optician, or to the spectacle vender.

The eye presents many difficulties of study, especially that department which relates to departures from its normal refraction, owing to the necessary knowledge of optical principles, without which it is impossible to comprehend the abnormalities to which it is liable.

It is not expected of, nor is it possible for the general practitioner to know all about optics, nor is it necessary for him to know more than is taught of *refraction and accommodation* in standard works on physiology, to understand why the jeweler, the street spectacle vender, or even the well-informed optician are not qualified to measure the length of the eye or estimate the irregularity in the curvature of the cornea, and adapt suitable glasses to these conditions.

A normal eye possesses in a wonderful degree the power of adjusting itself to view objects at different distances, but when it becomes embarrassed, as is too frequently the case, by certain abnormalities in its anatomical structure, by being too long, or too short, or in having an irregularity in the curvature of the cornea (which in the main constitute the errors of refraction), it is limited in its functions to such a degree that it is exposed to continual strains upon which depend so many of those distressing symptoms, too frequently attributed to obscure nervous affections.

In order to appreciate the cause of a great many of these anomalies in its refractive power, we should impress ourselves with the property of the eye to adapt itself to different distances—in other words, its *accom-*

modation — regulated by the action of the ciliary muscle, which controls the lens in such a manner as to make it more or less convex, according as we desire to view objects near or far. In old age, of course, this action is limited, as the lens becomes less flexible.

It is the abnormal action of this little muscle that plays such an important part in rendering indefinite and mystifying many affections of the eye.

The normal eye may, by reason of a spasm of the ciliary muscle, become abnormal in its refractive powers.

This cramp or spasm of the muscle may be caused in the normal eye by its long continued use at some certain distance. The following case serves as a good illustration :

Miss P., a school girl twelve years of age, who had defective vision, was brought to me for consultation. She had been compelled to study her books very closely, and besides did considerable drawing. She could see tolerably well close, but very poorly at a distance. She suffered almost constantly from headache. She had been fitted with glasses by a traveling optician, and although at first they gave her great satisfaction, in a few days became useless, and she was compelled to discontinue them. I found in making a test with the trial lenses that a concave No. 14 for the right eye, and a concave No. 24 for the left eye, made vision perfect. Her father was very much elated with what had been accomplished with the glasses, especially for distant vision, as she had not been able to distinguish persons at a distance of twenty feet.

I informed him that the glasses were not probably what she needed, and asked him to remain in the city with his daughter until I should thoroughly atropinize her eyes, when she could be properly fitted. He reluctantly consented to do so, as he thought the test made was "good enough." After paralyzing the accommodation, he was again surprised to see his daughter read all the letters on the test card at a distance of twenty feet *without the glasses.*

I found that there could be no improvement with glasses, and that the refraction of the eye was normal, which I verified with the ophthalmoscope. I sent her home, advised the atropine solution to be used in each eye every alternate day for a week, when it was to be discontinued. After the paralyzation had passed off, vision both for far and near was good *without the aid of glasses.*

This is not an isolated case, and suggests the propriety of thoroughly atropinizing the eyes, especially of children, before an attempt is made to fit with glasses.

By reason of an error of refraction there are frequently unequal spasms of the ciliary muscles, causing striking contrasts in the different powers of refraction in the eyes of the same individual.

This is well exemplified in a recent case: Mr. G., aged twenty-three years, a grocer, consulted an intelligent physician of this city on account of defective vision. He stated that after reading a few moments there appeared a glimmering and running together of the letters and words, which confused him so much that he was compelled to stop. He also complained of headache and dizziness. His physician examined his eyes, finding nothing of a local nature indicating what the real trouble was. Anticipating an error of refraction he tested one eye at a time. He found that a convex No. 36 improved vision very much in the left eye, and a convex No. 9 gave the best, although not perfect vision, in the right. The physician sent the patient to me, and my examination verified his.

I proceeded at once to paralyze the accommodation by dropping a four grain solution of atropine into his eyes; this was repeated the same evening and the next morning. About noon he again called, when I found the left eye which had before required but a convex No. 36, now required a convex No. 12, with good satisfaction for distant vision. The right did best with the convex No. 9, but it gave poor satisfaction.

The atropine solution was continued morning and evening, and an examination made each day with the same unsatisfactory result, when on the fifth day a convex No. 12 gave as good satisfaction for the right eye as for the left. I advised the continuation of the atropine solution for a fews days longer, in order to thoroughly relax the accommodation, and gave him a prescription for the glasses, which I understand from his physician are giving good satisfaction. The headaches and dizziness have entirely disappeared, and he expresses himself as being in "another world."

In this case, one eye was intuitively adapting itself for a far point, and the other for a near, which perhaps in a short time could not have been satisfactorily corrected.

This brings into consideration another instance of irregularity in the refraction, *whereby a spasm of the ciliary muscles causes one eye to become adapted to a near point and the other to a far one.* This occasionally occurs, and no doubt patients have been so afflicted for years, when by accident it has been discovered.

We often hear of aged persons who have never been compelled to use glasses, and who can see well either at a near or far point. An examination in such cases reveals the fact that one eye does the close work and the other that at a distance.

It is popularly believed, and even taught by some oculists, that where there is so great a difference in the refractive powers of the eyes, they should be fitted to the full correction. This is not always good treatment, especially if the patient is not very young; indeed, it is often injurious, and patients so treated are made to suffer considerable inconvenience. While we are to be guided by certain rules in the fitting of glasses, and while it is not expected that we must cater to the whimsical, yet the sensations of our patients are by no means to be ignored.

What I desire so much to impress upon the mind of the physician, is the impossibility of any one but an oculist being able to fit the eye properly with glasses. It is true that in presbyopia, where the lens is losing its flexibility by age, any optician or other person who knows anything about the numbering of glasses can usually make the selection, yet there are many cases of presbyopia that are associated with astigmatism, where the fitting is rendered difficult, and where, for a want of its correction, the patient is compelled to suffer from weakness of sight and untold nervous troubles.

I was consulted by a lady some years ago for defective vision. She was fifty-four years of age, and from the time she was quite young, suffered very much from weakness of sight and headaches. She consulted opticians, jewelers, physicians, and every one in her reach who made any pretense in treating the eye, all to no purpose. After she became presbyopic, or in other words, after the lens had lost its flexibility from age, she was compelled to obtain glasses for near vision, but still she suffered from the weakness of sight and headaches as she formerly did. A very casual examination with some simple tests was sufficient to determine that there was an irregularity in the curvature of the cornea, that she was astigmatic. The correction of this irregularity gave her the greatest satisfaction. The weakness of sight, the headache, the spasmodic twitching of the lids which she had had for so many years, all disappeared almost magically.

She was so much improved for near vision that she desired glasses for a distance also. She was enabled to read the signs on the buildings on the other side of the street, and could now see the sharp angles on the corners of houses, a thing she had never before been able to do.

The symptoms accompanying defective refraction are so many and so diverse, that the stomach, the liver, and the nerves have often been appealed to medically to no purpose, and the eye has often been medicated with caustics and strong washes for indefinite periods with equally bad results, when, after having been properly fitted with glasses, all those annoying and obstinate symptoms have at once disappeared.

A YEAR OF HOSPITAL WORK.

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It would be impossible, if not out of place, for the purpose of the present article, to more than mention some of the principal observations made in the institution during the past year, and to make a few statement concerning the methods employed and the results obtained.

Stenosis of the cervix uteri has been treated by forcible dilatation. In the larger number of cases, preliminary dilatation was accomplished by Miller's dilator until a straight bistoury could be inserted into the cervical canal, and a bilateral incision made. Baer's modification of Ellinger's dilator was then used, and the blades forced open to the desired extent, usually one and a half to three inches. It has seldom been considered necessary to insert a glass or rubber plug, as an occasional dilatation afterwards has kept the canal open. The hemorrhage following the incisions and dilatations has never been of any consequence. In the twenty cases operated upon, only the best results have followed. In one case, nervous symptoms of a serious nature were speedily relieved; while in all cases, the general health of the patient has improved. Two cases, in which from six to seven grains of morphine were required for each twenty-four hours of the menstrual period, were remarkable for the speedy and permanent relief from pain following the operation.

Of thirteen cases of laceration of the cervix uteri, all were treated by denuding and bringing the parts together by silver sutures save one, in which cat-gut was used. In twelve cases, the treatment consisted of hot antiseptic douches twice or oftener daily; while in the case in which cat-gut ligatures were used, the vagina was packed with iodoform, and no douches given. The sutures were of number eighteen silver wire, and varied in number from four to ten. In each case the urine was removed by the catheter, followed by a warm douche. Good results were obtained in all the cases except the one in which cat-gut and iodoform were used, and in this the intercurrence of menstruation may have been the cause of partial non-union. Primary union was to be attributed to the use of a sufficient number of sutures and the complete arrest of the usual oozing.

Fourteen operations have been made for the restoration of the ruptured perineum. The cases operated upon varied in degree of destruction from a superficial rupture of the fourchette to a rupture through the sphincter ani, involving the recto-vaginal septum. Silver sutures, number eighteen to twenty-four, were used, from seven to ten being used in each case. One method of operation has been found particularly advantageous, and that consists in separating the layers of the recto-vaginal septum, and bringing the upper layer forward to the fourchette, and fastening it there by silk or gut sutures. In this way a solid vaginal floor is made for the protection of the sutures below. Warm antiseptic douches were given twice daily. The sutures were removed on the seventh or tenth day, as the cases required. The usual treatment was pursued in other respects.

Two cases for amputation of the cervix uteri have presented themselves. One demanding amputation for conical and projecting os, and the other for enlargement from cervical hyperplasia. In the former case, the amputation was made close to the utero-vaginal junction, the galvano-caustic ecraseur being employed. The vagina was tamponed, and the removal of these on the tenth day was followed by no hemorrhage, the stump being perfectly healed. In the latter case, the amputation was made with the chain ecraseur. This operation was followed by a high range of temperature and alarming depression, the patient being somewhat debilitated at the time. Recovery was slow and subsequent examinations revealed the os almost completely obliterated by cicatricial tissue. By means of filiform bougies, the os was enlarged sufficiently to permit of the introduction of tents and later of dilators, when the canal was restored. The ultimate result has been most gratifying.

Among the genito-urinary cases were four of special interest. One case of varicocele was treated by removal of the redundant portion of the scrotum, this being followed by enormous distention, by secondary hemorrhage, and subsequent repair of the wound by granulation; and another case of varicocele in which the ligatures about the veins remain *in situ* for thirty-nine days. Both made good recoveries.

Two cases of castration were received. In one, the testicle was removed for tuberculous infection. A tuberculous degeneration of the sacrum was found in the same case, and was treated by free incisions and use of the chisel. The wound was allowed to heal by granulation. In another case, the testicle was removed for a sarcoma. The testicle was enormously enlarged, and had occasioned great pain and depression by its weight. Both cases made good recoveries.

An amputation of the leg in the lower third was made for marasmic gangrene, following an amputation of the great toe. Though thirst and polyuria are absent in many cases of diabetes, necrotic processes follow in them very frequently. In this case extensive calcification of the large and smaller arteries was found, and scrupulous cleanliness and antisepsis, together with an antidiabetic diet were relied upon to prevent an increase of sugar in the urine and local absorption in the wound.

A resection of the wrist joint and afterwards an amputation was made for tubercular arthritis following an injury. Tuberculous processes in the wrist begin, probably with very few exceptions, in the carpus and not in the long bones. The radio-carpal articulation is less likely to be pathologically involved, as it is anatomically separated from the carpal articulations. In this case, the ulna and radius were so much involved as to make their amputation necessary. The wound healed nicely, but the patient has since manifested unmistakable symptoms of advanced pulmonary tuberculosis.

A case of *Lupus exedens,* which had resisted all methods of treatment for more than a year and a half, gave particularly pleasing results. The ulceration, which covered a large portion of the left temple and back of the right hand, was thoroughly curetted and burned with the thermo-cautery. After the first operation, the patient, who was nearly worn out with irritation and exhaustion, improved in general health. Repeated burning, iodoform and boracic acid dressings removed the ulcer with a minimum of scar tissue. In this instance a permanent and satisfactory cure has been accomplished. Considering how little amenable to treatment these cases are usually found to be, and what extensive erosions we find with them, this will be considered a particularly interesting case.

Two cases of hypertrichosis in the female have had a large number of electrolytic treatments. The method advised by Fox was the one used. A flexible broach attached to the negative cord of a battery of from ten to sixteen cells was introduced into the follicles by the side of the hair. The patient held the positive electrode in the hand. The electrolytic action manifested itself in a few minutes, and the hairs were removed with the gentlest traction. The growth of hair was most abundant. How many of the hairs reappeared after removal cannot be said, but there is still a strong tendency for the fine downy hairs to develop in size and length. After four months interval from the last operation, the patient says the operations have proven satisfactory, and that though a number of sittings will be required yet, there is a marked improvement.

The common carotid has been ligated once for hemorrhage occurring in the removal of an osteo-sarcoma of the superior maxillary bone. The ligation was made in the inferior carotid triangle. The incision healed by first intention, and the patient, a male, left the hospital on the tenth day.

Two cases of cancer of the breast have been operated upon. In both cases, silk sutures were employed. In the first case, an incision of fourteen inches in length was necessary. The sutures had to be cut on the third day, and the wound closed by first intention. Three months later a second operation was made for the removal of a portion of the malignant growth which had re-developed, and the old cicatrix was thoroughly excised and curetted. In the other case, primary union was obtained, and there was very little discharge. The patient was able to leave on the fourteenth day. From an observation of these two cases, it is probable that the sutures will be omitted in the next operation, coaptation to be obtained by adhesive strips.

Five laparotomies have been made. The first was for the removal of a uterine fibroid. The complications attending the operation made it a long one, and the patient died of shock eight hours later. In the second, both ovaries were found degenerated, one of them suppurating. Both were removed, and the patient made a rapid recovery. The third was removal of both ovaries for menstrual insanity. The patient had been insane more or less of the time for five years. The details of the case are most interesting. Recovery was rapid, and reason has been fully restored. In the fourth case both ovaries were removed, and nothing occurred to interrupt the recovery. In the fifth case, a fibroid, involving in its structure the entire uterus, ovaries and oviducts, was removed. Tait's clamp was applied and the pedicle held in the abdominal wound. On the nineteenth day the cervix uteri came away through the abdominal wound. Drainage was established through the vagina, and recovery was uninterupted.

Cleanliness was the main antisepsis in these five cases. Carbolic acid 5 per cent., and corrosive sublimate solutions 1-5000, were used. With regard to the surroundings and circumstances under which these operations were made, very little need be said. The floor of the room was thoroughly scrubbed and afterward wiped dry with a cloth. The day previous to the operation, the dressings, towels, bed clothing, etc., were placed in the rooms, which was then sealed and fumigated. Operators and assistants paid strictest attention to cleanliness. The dressings in no case were disturbed until the temperature rose above 1½ degrees Fahrenheit. In two cases, large abscesses formed beneath the suture line in the sheath of the rectus muscle, but beyond a slight rise in temperature no ill results followed. The pus cavities were washed out twice daily with a solution of corrosive sublimate, and the walls kept in apposition by adhesive straps and binder.

In operations upon the eye, cocaine (Merck's) in 4 per cent. solution, has been used largely. Bichloride solutions were used preparatory to operating. Recently the use of sponges was abandoned, and the eye was irrigated with a solution of boracic acid poured from a small wash bottle. Instead of using the ordinary compresses and flannel rollers, strips of isinglass plaster have been employed for keeping the eyes closed. It has been found to be cooler and lighter, which are two great considerations in warm weather. The tendency to inflammatory trouble seems lessened, and patients who have had both dressings applied speak loudly in praise of the isinglass plaster.

One case of traumatic tetanus was received for treatment. The attack had existed eleven days, originating from a pistol shot wound of the palm of the hand. When received and placed upon the operating table, the patient, a boy nine years of age, was having convulsions in rapid succession, and was almost exhausted by their violence and long duration. Under scrupulous antisepsis an incision was made and the median nerve stretched with a pressure of about thirty-five pounds. The operation was productive of no decided benefit, and the patient expired seven hours later.

A case of craniotomy with trephine and chisel has been followed by most gratifying results. The patient, a boy thirteen years of age, was kicked on the head by a horse. When admitted to the hospital he was in a stupor, which had continued, more or less continuously, for six weeks. Upon objective examination, a depressed area about one by one-half inches was found in the right temporal region, about the anterior inferior angle of the parietal bone. After shaving and reflecting the soft parts, the trephine was applied, and thirteen fragments, varying in size from an inch square to a grain of wheat, were removed. A large amount of pulverized bone, mixed with pus and inflammatory products, was removed, and some brain substance oozed from the opening in the dura mater. The wound was carefully cleansed, the flaps replaced and the patient returned to bed. He had no unusual rise of temperature, one hundred being the highest point reached. Cold applications and iodoform were used, and, with the exception of hernia cerebri, which gradually decreased in size, the case proceeded to a rapid recovery.

Of the anesthetics employed, chloroform has been preferred in a large number of cases. No unpleasant results have followed its use in any case, while three cases of suppression of urine and transient albuminuria have followed the use of ether. A careful observation, extending over more than a year, has done much to establish the fact that ether should not be used in cases where acute or chronic nephritis is suspected. A careful examination of the urine for albumin or casts has been made before the operation, when possible. The only condition in which chloroform has been considered objectionable is the presence of a weak heart, whether from nervousness or fatty degeneration.

A CONSIDERATION OF THE RESULTS IN 327 CASES OF TRACHEOTOMY, PERFORMED AT THE BOSTON CITY HOSPITAL FROM 1864 TO 1887.—Drs. R. W. Lovett and John C. Munro, in the July number of *The American Journal of the Medical Sciences*, present an elaborate detailed study of the results of tracheotomy at the Boston City Hospital. They show that the results of operation in the series of cases studied are above the average in spite of the predominance of bad cases. They show that young children are especially liable to have extension of the diphtheritic process to the bronchi and lungs; in fact, that the chances are three to one that if they die they will die of suffocation. That, in Boston, tracheotomy at the hospital is most fatal at those times when diphtheria is most fatal in the whole city, and incidentally that the mortality per cent. from croup and diphtheria in the whole city vary by the month in unison. That cases with membrane in the pharynx at the time of operation are more likely to die than those where it is not present. That the mortality per cent. after tracheotomy rises steadily as the operation is done on the first, second, third, or fourth day of the difficult breathing. That nasal discharge, albuminuria, and enlargement of the cervical glands, are symptoms of less moment than the character of the discharge from the trachea tube, which is the most important index of the progress of a case, and that the recovery-rate varies nearly 50 per cent. between cases where the discharge is loose throughout and those where it is gummy at any time.

Finally, for purposes of comparison, they present a table of all available reported cases of tracheotomy, arranged according to countries. The average of recoveries in 21.853 cases was 28 per cent., and of 1327 American cases the average number of recoveries was 23 per cent.

"Men see clearly, like owls, in the night of their own notions; but in experience, as in daylight, they wink and are but half sighted."—*Bacon.*

OBSTETRICS.

VESICAL IRRITATION IN WOMEN.—(Dr. Virgil O. Hardon in *Atlanta Med. and Surg. Jour.*)—There is probably no class of diseases, outside of those incurable, which are ordinarily treated with so little success as the diseases of the female bladder and urethra. Many a woman has been faithfully treated for vesical irritation with frequent micturition by astringent injections into the bladder, when the whole cause of trouble consisted of a displacement of the womb which produced a traction upon the vesical neck which could be remedied only by lifting the womb to its normal position. A very considerable proportion of all women who are the subjects of uterine derangement suffer with bladder symptoms. At the same time, it is true that there are many cases in which irritation of the bladder has no dependence upon disease of the womb, and the recognition of this is the point upon which turns success or failure in treatment.

Frequent micturition exists in women when there is no other subjective symptom to indicate disease. It is often the case that such patients mutely suffer for years, heroically bearing the pain with patient endurance. Since there is no fixed law in regard to the normal frequency of micturition, the line which separates a healthy from a pathological condition is very indefinitely drawn, and women often overstep that line through lack of proper physiological teaching. I have seen women who were compelled to urinate as often as every hour, yet who, in the absence of any other symptom, contented themselves with the idea that they had a "weak bladder," and looked upon it as a constitutional peculiarity like a bad memory. There is probably no symptom existing to its fullest extent capable of producing more physical and mental anguish than this one. Pain, even though it may be constant, may be hidden by a calm exterior, so that none but the sufferer is aware of its existence. But the necessity of emptying the bladder at short intervals cannot be concealed or disregarded, and debars the subject of it from the society of all except her most intimate friends of her own sex. Continuous application to any pursuit, physical or mental, is rendered impossible by constant interruptions, and the pleasures of society are forbidden. The urine is normally discharged from the bladder five or six times during the twenty-four hours. But many women who are in perfect health, especially those who have born children, urinate as often as every two hours during the day, and are uncomfortable if compelled to retain the contents of the bladder for a longer time. On the other hand, many whose occupation prevents so frequent micturition, acquire the faculty of holding the urine for five or six hours. I am convinced that habit has a strong influence in the matter, and that a healthy bladder can be trained to submit to a much greater amount of habitual distention than is ordinarily required of it. Since no arbitrary line can be drawn which would in all cases separate the normal from the abnomal condition, frequent micturition can be defined only as micturition whose frequency causes inconvenience or annoyance, and depends on a morbid condition for its causation. But a more distinctive characteristic of abnormally frequent micturition is the necessity of habitually emptying the bladder at intervals during the night, a necessity which is never present when the organ is not subjected to morbid influences.

There are several varieties of small tumors which occur at and within the mouth of the urethra, which give trouble only by mechanical irritation; they interfere with the free escape of urine, and give rise to frequent desire through reflex irritation. If situated just within the meatus, they will scarcely escape detection, but if located within the urethra, the reflex symptoms may so completely mask the true condition that they will not be discovered. These growths may be pedunculated polypi, small neuromata or vascular growths. The last are most common and are rarely found elsewhere than at the meatus. The neuromatous and pedunculated tumors may be found in any part of the canal and often escape detection. No speculum has yet been invented by which can be gained a satisfactory view of the urethral canal for more than a very short distance beyond the meatus. For this reason the symptoms arising from the presence of such growths are often ascribed to other than their true causes. There exists, however, a means of diagnosis and treatment which has lately been introduced by Emmet, called the "button-hole operation," which consists in the establishment of an artificial urethro-vaginal fistula, through which the whole of the urethral canal can be thoroughly exposed and treated by topical applications when necessary. When there is reason to suspect the existence of a small fibroid or neuromatous growth at a point within the urethra which is not accessible through the meatus, the operation should be performed for the detection and removal of such tumor. When found, the growth should be snipped off with scissors and its base touched with acetic acid. The artificial fistula may then be immediately closed. If the tumor is located at or about the meatus, its removal in the same manner is a very simple affair. Care must be taken to remove as little as possible of the normal tissue, since cicatrization about the meatus is liable to lead to contraction of that orifice with disastrous results. When these growths are removed, they have little tendency to return.

Prolapse of the urethral muscous membrane is sometimes met with as a cause of vesical irritation in women who have had frequent or long labors, from the pressing forward of the child's head; it is rarely seen in nulliparous women. The mucous membrane projects from the meatus in a circular fold similar to the condition which exists in prolapse of the rectum. The prolapse portion becomes excoriated and sometimes painful. There is no difficulty in distinguishing this condition. The plan has been recommended of removing the prolapsed portion with knife or scissors, but I know of no precedure which should be more severely condemned. By such removal a permanent shortening of the urethra is produced, the neck of the bladder is drawn forward under the public bone, and thus an incurable distortion of the parts is effected. Moreover, the cicatrization which follows the operation is liable to produce a contraction at the meatus which may lead to a chronic urethritis. The proper treatment consists in gently restoring the prolapsed mucous membrane to its normal position by means of a steel bougie, by which it should be gradually pushed toward the bladder. This process may be aided by manipulation by a finger in the vagina. When the prolapsed canal has been wholly restored, the sound must not be drawn straight out, for it would bring the mucous membrane with it, but by a rotatory, boring motion it may be removed without displacing the membrane. This procedure may require repetition, but in the end it will often effect a cure. When it fails, the most effectual treatment consists in restoring the mucous membrane as just described and, while the sound is *in situ*, performing the button-hole operation. The edges of the fistula should be brought together again with a portion of the urethral mucous membrane turned into the wound. In this way the membrane will be securely fastened in its normal position, so that prolapse will be impossible.

In some cases a dilatation of the urethra occurs, forming a pouch which projects into the vagina, and in which urine collects and is not discharged in urination. This constitutes a source of irritation which in time gives rise to vesical irritation and micturition. It is usually caused by the downward pressure of the fetal head during labor. A pouch capable of holding from one to two drachms is formed which may be detected by digital or ocular examination. A sound passed into the urethra while a finger is in the vagina will make the condition more ovious and will facilitate its diagnosis from a tumor of the urethro-vaginal septum. For this condition a portion of the septum must be removed of such size as to restore the canal to its normal calibre. This may be done by passing a large-sized sound into the urethra, and then taking up with forceps a fold of the septum of sufficent extent to draw the tissues closely about the sound. This fold will constitute the portion to be removed, and such removal should be done with curved scissors. The edges of the wound should then be united with sutures, and primary union will readily occur.

Forcible dilatation of the urethra as a means of diagnosis and of treatment has been advocated by many eminent authorities, who report good results from it. But my experience leads me to believe that in the hands of the average practitioner the operation is not one to be recommended, on account of the liability to the production of permanent incontinence of urine. I have seen such incontinence occur repeatedly in the practice of men who were neither careless or unskillfull. As long as this constituted the only method of obtaining access to the urethal canal, it became necessary to resort to it at times when digital exploration was imperative, but since Emmit has shown a way which is simple, forcible dilatation should be consigned to the limbo of forgotten things. The physician should never be tempted to thrust his finger through a urethra into a bladder under the impression that it is simpler or safer than the surgical operation mentioned, for if he does, he may regret it when it will be too late for regret to avail.

But the most common mechanical cause ot vesical irritation consists of the downward displacement of the womb. In the text-books it is stated that the pressure of a dislocated womb upon the bladder produces irritation of that viscus. But a moment's reflection will serve to show the incorrectness of this statement. The normal position of the womb is that of anteflexion, so that the fundus rests upon the bladder. In addition to this, the bladder is always subjected to more or less pressure from the weight of the super-imposed viscera which rests upon it and follow it down as it contracts during micturition. Hence the bladder is always subjected to a greater or less amount of pressure, and if pressure could produce vesical irritation, no woman would ever be free from this symptom. In any event, the additional weight of a displaeed uterus, which normally weighs only one and a half ounces, could not produce any appreciable effect. It is not the pressure of the womb, but the traction of that organ upon the neck of the bladder. The anatomical relation of the parts shows this. It is also shown by the results of treatment. In the majority of cases of frequent micturition in women in whom no organic disease of the bladder or urethra exists, the symptoms are relieved by raising the womb in the pelvis, and keeping it raised by an appropriate mechanical means.

Sometimes the cervix uteri will be found lying far back in the pelvis, within the hollow of the sacrum and pressing upon the rectum. This may be due to a rotation of the whole uteras upon its transverse axis, to a shortening of the utero-sacral ligaments, or more rarely to a retroflexion of the cervix. Whatever its causation, the effect is to produce traction upon the bladder through the so-called utero-vesical ligament. In such cases a finger in the vagina will feel a tense band of tissue extending from the cervix forward to the bladder. With this condition, vesical irritation and frequent micturition are the rule; there is usually a feeling of constant desire for micturition, even when the bladder is empty. If the cervix be brought forward into its normal axis in the vagina, this sensation immediately disappears, because the traction upon the bladder ceases. Hence there are usually two indications to be met with in cases where vesical irritation is produced by traction of the womb upon the bladder, viz.: to keep the womb at its normal level in the pelvis, and to keep the cervix in its normal axis in the vagina. I know of no device which accomplishes the purpose as completely as the supporting tampon. The pledgets of cotton surrounding the cervix may be so graduated as to restore it to its normal axis, while the larger underlying pad raises the womb as a whole to its normal position in the pelvis.

But while the supporting tampon gives immediate and complete relief in such cases, it must not be regarded as a finality. The physician who stops at this point will have failed to cure his patient. Behind the displacement of the womb is some pathological change which has added to the weight of the organ, either by an increase of the amount of blood contained in its tissues, or by an increase of its solid constituents, or by both combined. The condition which sets in motion the train of causes which eventuates in vesical irritation may be a stenosis of the cervical canal, a rupture of the perineum, a laceration of the cervix, or any other factor capable of producing congestion, causing hypertaophy or arresting involution. A radical and permanent cure involves, therefore, the removal and prime cause, whatever it may be. In other words, vesical irritation may be relieved in this class of cases by the supporting tampon, but it can be permanently cured only by the cure of the co-existing uterine diseases.

When no organic disease of the pelvic organs exists, and there is no displacement of the womb, the case may be regarded as one of purely reflex irritation, and its source must be sought out if possible. It may be in the kidneys, the ureters, the external organs of generation, the anus, the rectum, the spinal cord, or any of the nerve centers throughout the body. Hysteria may give rise to frequent micturition. It is necessary to seek out the abnormal condition, and remedy it by the proper therapeutic or operative means. The point which I especially insist upon is, that in a case of irritable bladder, manifested by frequent micturition, it must *not* be taken for granted that the seat of disease is in the bladder. Many a patient has been dosed with buchu, cubebs, nitre, citrate of potash and the like for a supposed cystitis, when a simple examination would have revealed a fissure of the anus, a stricture of the urethra, or a displacement of the womb as the cause of all the trouble. If the possibility of such an origin of frequent micturition be borne in mind, one will not be apt to be led into error. It is only by ignorance or forgetfulness of such a possibility that the physician is liable to be led astray.

THE EFFECT OF RETAINED MEMBRANES ON THE PUERPERAL STATE. —Dr. Fischer, of Prof. Slavianski's clinic, has published the result of a number of observations made for testing the commonly received view that portions of membrane retained in the uterus after the expulsion of the placenta are liable to produce serious consequences—as hemorrhage, and espcially the so-called auto-infection or septicemia—and that therefore it is of the utmost importance that they should be removed by the hand or by intra-uterine injections. This view is supported by Winckel, Dohrn, Ahlfeld, and others; while Ohlshausen, Crede, Weiss and Landau consider that there is little harm in the retention of even considerable portions of the chorion. Dr. Fischer's observation extended over six hundred and eighty-two labors, in each of which he carefully examined the after-birth. In forty-two of these cases (*i. e.*, 6.2 per cent.) a portion of the chorion was retained. Crede's method of manipulation the fundus uteri gave the best results regarding the percentage of retention. In primiparæ, retention was nearly twice as frequent as in multiparæ, the percentage being 9.1 and 4.9 respectively. Some effect appeared to be exerted by the time at which the rupture of the amnion took place, which, when either too early or too late, seemed to predispose to retention.

Premature deliveries also were rather more frequently followed by retention than those at term. As a rule, the retained chorion came away in from four to six days, generally in several small portions, sometimes, however, in fragments of considerable size, and in one case, where three-fourths of the chorion had been retained, it was passed entire on the fifth day without having caused either hemorrhage or sepsis. Among the forty-two cases hemorrhage occurred only four times, and was always easily arrested, either by hot irrigation or by ergot, and manipulation of the uterus. When, however, we learn that out of the forty-two cases manual extraction of the fetus was required seven times, and that a considerable loss of blood occurred during the third stage eleven times, four cases of slight post-partum hemorrhage does not appear at all excessive. With regard to pyrexia, in 20 cases, or 47.6 per cent. there was none; in twelve, or 28.6 per cent. the thermometer, which was always used thrice a day, once registered a rise above normal; and in ten, or 24.8 per cent. there was more or less pyrexia. In order to compare these with cases in general, Dr. Fischer gives the result of similar observations made on all the cases he has attended for the past two years. These show that there was no pyrexia in 58 per cent., that the temperature was only once above normal in 17.6 per cent., and that there was pyrexia in 24.4 per cent.; so that the ratio of appreciable pyrexia was about the same in the cases in which retention occurred as in ordinary cases. A slight amount of endometritis occured in three out of forty-two cases. Dr. Fischer concludes, from his observations, that there is no ground for supposing that retention of fragments of membrane gives rise to "auto-infection," and considers that the commonly received view is fraught with danger, inasmuch as it tempts the accoucheur, when sepsis occurs, to throw the blame, not on himself, as he ought to do, but on some fancied auto-infective process, and thus probably prevents his being as particular as he should be in employing antiseptics in the management of the labors he has to attend.—*The Lancet.*

NITRITE OF AMYL IN AFTER-PAINS AND DYSMENORRHEA.—Mr. F. W. Kendle, of South Molton, reports the case of a lady who complained to him, the first day after delivery, of excruciating after-pains, which she declared were worse than any she had experienced during the labor. The womb was found firmly contracted; loss was slight; and no clots larger than beans had been passed. As several hours must necessarily have elapsed before any medicine could have been sent her, Mr. Kendle broke a couple of nitrite of amyl capsules (four grains in each), into a smelling-bottle, and directed the patient to take two or three deep inhalations when she felt a pain coming on. The effect was simply magical: the pains were immediately relieved, and shortly ceased altogether, the patient being soon able to take some refreshing sleep. She made an excellent recovery. He has since tried the same remedy in two other cases of less severity, with similar results. He has also found the drug invaluable in the sickness of pregnancy, and in obstinate cases of dysmenorrhea. Inhalation seems to be more certain and lasting than the internal exhibition of the drug. He strongly recommends this as a simple and efficacious plan of treatment.—*Lancet.*

ELECTRICITY AS A MEANS OF STIMULATING THE MAMMARY GLAND TO LACTATION.—In 1884, a patient, in whom the usual medication for diminished lactation had failed to increase the secretion, was successfully treated through the application of faradic electricity. Since that date, M. Pierron has treated a number of such cases, and always with complete success. The mode of operating consists in placing the positive electrode, having the form of a spherical cup, over the nipple, while the negative electrode, terminating in a ball, is placed below the breast. In this manner the orifice of the gland is the first to be excited. Afterwards, the positive electrode is moved over the entire surface of the gland, while at the same time the negative electrode is displaced in such a way that the former will converge towards the latter. The current should not be strong enough to excite pain. Each application should last 10 minutes, and be renewed daily until milk is obtained, which rarely fails to appear after the fourth application.—*London Med. Record.*—*Arch. of Gynecol.*

THE *Medical Press and Circular* vouches for the truthfulness of the following: "A certain operator proposed to remove 'the uterine appendages' from a patient under his care, and he asked a gentleman present if he would like to examine the patient, saying she had been suffering for years with an acute pain, that life was a burden, etc. The gentleman, struck by the full, round, rosy cheeks and red lips of the woman, first asked her how she slept at night. 'Oh, very well, thank you,' was the reply. 'You have no pain at night, then?' was the next question. 'Oh, no,' she answered. 'Have you pain all day long?' continued the questioner. 'Not all day through,' she replied. 'Have you pain every day?' he went on. 'No, not every day,' was the answer. 'How often does the pain come on, then?' the gentleman continued. 'Oh, three or four days a month,' was the innocent reply, much to the amazement of the questioner. The would-be operator was understood to mutter something about 'getting any answer you like;' but it will be satisfactory to learn that the patient saved her ovaries on that occasion at least."

MEDICINE.

THE DIAGNOSIS OF CANCER OF THE STOMACH.—The symptoms of cancer of the stomach are often so obscure, so misleading, and sometimes so entirely latent as to baffle the most experienced diagnostician, and the same remark may apply, with lesser force, to the physical signs of the disease. The cases most easy of diagnosis are certainly those in which a well-marked tumor may be felt in the epigastrium, a tumor, however, that may be confounded with neoplasms of liver, pancreas, intestine, and lymphatic glands, with biliary calculi, and simple inflammatory thickening of the anterior wall of the stomach.

Of the latent forms of the disease, those in which neither tumor nor decided gastric disturbance is present, a diagnosis, until within a recent period, could only be made by the most careful exclusion. At present, however, thanks to the labors of several German and French observers, we are in possession of certain facts which, taken singly, are of material aid in the diagnosis of gastric cancer, and, when co-existent, are pathognomonic of that affection.

In diagnosis of cancer of the stomach the greatest significance is to be attached to the absence of free hydrochloric acid from the contents of the viscus. In testing for this acid, certain precautions, emphasized by Riegel, are necessary. In the first place, the stomach contents should not be examined within three hours after eating. Secondly, vomited matters are not suitable for examination, because emesis generally takes place within the proscribed period, and the chemical reactions are disturbed by large quantities of bile and mucus.

The technique of this test is both mechanical and chemical. The gastric contents are first withdrawn by the stomach-pump, or siphon, and the secretions may be stimulated by the introduction of a small amount (100 cubic centimetres) of ice water, followed in ten minutes by a smaller quantity (3 cubic centimetres) of water of a much lower temperature. The whole is withdrawn, and submitted to the following tests: First, the presence or absence of free hydrochloric acid is determined; secondly, the digestive power of the liquid is ascertained.

As tests for the hydrochloric acid, the following substances are employed: Methyl-violet, lacmus, tropeolin, congo-red, gentian-violet, etc. In all his examinations, Riegel employs several tests, and, with regard to methyl-violet, he declares that, in the examination of several thousand specimens of gastric juice, he did not encounter one that digested well and gave no reaction with this substance; and, on the other hand, the specimens that gave the reaction always digested well. This important test is thus applied: into each of two test-tubes are poured 50 c. c. of distilled water, followed by two drops of two per cent. solution of methyl-violet. Into one of the tubes is now added, drop by drop, the fluid obtained from the stomach; to the other is added an equal quantity of pure water. If fresh hydrochloric acid be present in the gastric contents, the fluid in the first tube will turn blue, while, in the latter, it will retain its violet hue. According to RENAULT, methyl-violet may be replaced by gentian-violet, which gives the same reaction.

While there can be no doubt that the absence of hydrochloric acid from the stomach contents is a most important point in the diagnosis of gastric cancer, the general acceptance of the fact has been retarded by the unwarranted claims that have been made regarding it. For example, Von den Velden has formulated the law: "when hydrochloric acid is absent from the liquid withdrawn from the stomach, such absence is due to a cancerous neoplasm." This statement is refuted by the observations of Riegel.

In the course of the last year Riegel studied sixteen cases of cancer of the stomach, in five of which the diagnosis was confirmed by the autopsy. In these five cases he made one hundred and fifty-four analyses of the contents of the stomach with a digestive test and quantitative estimation of the amount of acid present. In none of these numerous analyses was free hydrochloric acid found, and in no instance did the filtrate of the stomach contents possess the power of digesting albumen. In one of the cases, hydrochloric acid, in large doses, was given soon after meals, but here, also, at the time of examination, free acid could not be found, and the gastric juice was without digestive power. In this case, on the day of administration of hydrochloric acid, the acidity of the stomach contents, at the time of examination, was less than on the other days, which paradox is explained by the fact that the hydrochloric acid prevents fermentation, and, therefore, lessens the amount of organic acids, especially the lactic, on which substance largely depends the acidity of the stomach in cases of carcinoma of that organ.

In eight of the eleven remaining cases, one hundred and twenty analyses failed to find either free hydrochloric acid or digestive power. In the remaining three, there was found, at first, a very weak hydrochloric acid reaction and digestive power. They were, therefore, regarded as beginning cases of carcinoma. Latter, free acid was no longer found.

From these observations Riegel concludes that, in the gastric juice of a cancerous stomach, as a rule, both free hydrochloric acid and digestive power are absent, and that, on the other hand, if, in any case, free hydrochloric acid and normal digestive power are present, carcinoma may be excluded in spite of the most decided symptoms of that disease. He denies having ever asserted that the mere absence of hydrochloric acid from the gastric juice compels the diagnosis of gastric cancer, but believes himself to be the first to have demonstrated the absence of hydrochloric acid in other affections, such as amyloid disease of the mucosa, toxic gastritis, and continued reflux of the bile.

A search for enlarged lymphatic glands should always be made in cases of suspected cancer of the stomach. Troisier, of France, has recently called attention to the diagnostic importance, in this disease, of enlargement of the supraclavicular glands, a fact previously noted by Henoch, in 1863. It is stated by Renault that Jaccoud always examined the glands of the inguinal region in cases of gastric cancer. Enlargement of the supraclavicular glands has also been observed in cancer of the esophagus, of the lung, of the pleura, and even of the uterus; but in the absence of symptoms of disease of those parts, it is confimatory of the symptoms of cancer of the stomach.

Certain hematological researches of Quinquand are of undoubted value with reference to the diagnosis of gastric carcinoma. Occupying himself particularly with the differential diagnosis between dilatation of the stomach caused by cancer, and simple dilatation, he found, in the former, a much greater diminution in the amount of hemoglobin in the blood. In health there are to every one thousand parts (grammes) of blood, two hundred and forty cubic centimetres of oxygen. In simple dilatation the figures representing the amount of hemoglobin and its power of absorbing oxygen are eighty to one hundred and seventy-four, while in dilatation caused by cancer they do not surpass fifty-two and one hundred. With this reduction in the amount of hemoglobin, the corpuscles are correspondingly reduced in number, and frequently assume the characters, increased size, and altered shape of the blood of pernicious anemia.

Excuses for failure to make a diagnosis in cases of latent gastric carcinoma are only admissible when all the means to this end have been employed with negative results.

Leaving out of view the stomach symptoms proper, which are often misleading, it is believed that a chemical and digestive test of the secretion of the organ, a proper examination of the blood, a careful search for enlarged cancerous cutaneous nodules, and finally, a quantitative estimation of the amount of urea in the urine, will furnish facts sufficient for a positive expression of opinion in every case of real or supposed gastric carcinoma.

With reference to the excretion of urea, Rommelaere, of Brussels, held the opinion that cancer was always present when the amount, for twenty-four hours, was below one hundred and fifty grains; and, although it has since been shown that figures as low may be reached in other states of inanition, the fact, when existent, has a decided diagnostic value.

For an excellent collocation and digest of our present knowledge of gastric cancer, with special reference to its diagnosis, the reader may consult with advantage the already quoted article of Renault—*Philadelphia Medical News.*

THE TREATMENT OF URETHRAL STRICTURE BY ELECTROLYSIS.—ROBERT NEWMAN, M. D., of New York, gives in the *Med. Register* the following *Recapitulation* of rules, as a safe guide for practitioners who wish to adopt the treatment of electrolysis in strictures of the urethra:

1. Any good galvanic battery will do which has small elements and is steady; the twenty-cell battery, carbon and zinc, is an excellent instrument, sufficient, particularly, for the beginner.
2. The fluid for the battery ought not to be used too strong.
3. Auxiliary instruments, as galvanometer, etc., are important to the expert, but not necessary for the beginner.
4. For the positive pole a carbon electrode is used, covered with sponge, moistened with hot water and held firmly against the cutaneous surface of the patient's hand, thigh or abdomen.
5. For the absorption of the stricture the *negative* pole must be used.
6. Electrode bougies are firm sounds insulated with a hard-baked mass of rubber. The extremity is a mental bulb, egg-shaped, which is the acting part in contact with the stricture.
7. The curve of the bougie is short; large curves are mistakes.
8. The plates must be immersed in the fluid before the electrodes are placed on the patient, and raised again after the electrodes have been removed.
9. All operations must begin and end at zero, increasing and decreasing the current slowly and gradually by one cell at a time avoiding any shock to the patient.

10. Before operating, the susceptibility of the patient to the electric current should be ascertained.

11. The problem is to absorb the stricture, not to cauterize, burn or destroy tissues.

12. *Weak currents at long* intervals.

13. In most cases a current of six cells, or from two and a half to five milli-amperes, will do the work; but it must be regulated according to the work to be done.

14. The *seances* should be at intervals, not too frequent in succession.

15. The best position for the patient to assume during the operation is that which is most comfortable for himself and operator. I prefer the erect posture, but the recumbent or others may be used.

16. Anesthetics I like to avoid; I want the patient conscious, so that he can tell how he feels.

17. Force should never be used; the bougie must be guided in the most gentle way; the electricity alone must be allowed to do the work.

18. During one *seance* two electrodes in succession should never be used.

19. All strictures are amenable to the treatment by electrolysis.

20. Pain should never be inflicted by the use of electrolysis; therefore it should not be applied when the urethra is in an acute or even subacute inflammatory condition.

A MOVABLE SHEET FOR THE SICK.—Dr. Roche describes the following device in the *Popular Science News* for May, 1887: I have found the following a valuable arrangement for the sick needing change of position, or, as is often the case, a weak nurse to perform the labor, or in case of surgery, where the safe and easy movement of the patient is necessary:

Fasten smoothly to the mattress, with strong safety pins, a rubber blanket or piece of enamelled cloth, rubber or enamel side up. Upon this, place a similar rubber or enameled cloth, if possible somewhat wider, so as always to keep the under one covered. Cover with a sheet, and make up the bed as usual. Between the rubber or enamelled surfaces sprinkle soapstone powder, kept by all shoedealers, or glove-powder; or, if nothing better can be had, the common graphite, known as stove-polish, will do. Now, by grasping the edge of the under sheet and upper enameled cloth at the same time, it will be found easy to *roll over* or move the heaviest person with slight effort, and little pain or straining, either to nurse or patient. If the device prove too slippery when not wanted, a few strong pins fastening it to the bedding beneath will prove sufficient to prevent it.—*Medical News.*

SURGERY.

THE CURE OF FISTULA IN ANO WITHOUT OPERATION.—The general impression among physicians is that nothing will cure a fistula except a surgical operation. This is true with regard to many fistulas, but it is equally true that a large proportion of them are curable without any operation more serious than probing and injecting, and in such cases it is a duty to exhaust the milder measures before resorting to the severer. But it is necessary to make a proper selection of cases. Where the fistula leads to extensive pouches, or several complicated branches leading in different directions about the rectum, the non-operative methods are not likely to succeed in any moderate length of time. But where the fistula is simple and contains no large pouches, and leads pretty directly to an opening in the rectum, there is an excellent prospect of cure without any strictly operative procedure. The reason why a fistula does not cure itself is not altogether, as we have formerly supposed, the daily forcing through it of materials from the rectum. On the contrary, if the interior of the fistula be thoroughly antisepticized throughout its entire length and into every curve and corner, and maintained in that purified condition, the ulcerative tendency which prevents contraction and healing is arrested. Granulations spring up through the whole length of the passage, and close it in spite of any moderate tendency of the rectum to force mucus, gas and feces into its channel.

Dr. Matthews, of Louisville, has devised a treatment which may almost be called non-operative, and by which he claims to have cured about twenty cases. He takes a long, slender laminaria tent, and, guiding it into the fistula as far as it will go, leaves it several hours to dilate the passage. He then takes Otis's urethrotome, and, insinuating it into the sinus, turns the screw and moderately dilates the channel, after which, by protruding the knife concealed in the tip of the instrument, he scarifies the interior. If necessary, he repeats the operation several times, thus making the passage straight and simple, giving it a free external opening, and by the irritation of the incisions arousing the growth of new granulations. If one wishes to try the completely non-operative plan, the best method of procedure is as follows: First, explore the interior and ascertain that it is simple enough to give the prospect of being able to make the injections reach all parts of it. Next, bear in mind that the fistula must have a free external opening, otherwise it will confine a quantity of septic pus in the interior, which, both by mechanical distention and irritant qualities, will arrest all efforts at healing. It is therefore best in many cases to enlarge the external portion of the sinus with a bistoury or with a laminaria tent. This being accomplished, inject the whole interior of the fistula carefully with a good, vigorous article (for that sold in the shops is very variable) of hydrogen peroxide. It will be better to inject this through a small catheter inserted into the deepest parts of the channel, or else throw it in by a syringe whose beak is large enough to completely fill the fistulous opening, so that the pressure shall compel the fluid to find its way into the remotest parts. Throwing the solution in repeatedly, and giving it time between the pulsations of the syringe for the foam produced by the action of the medicine on the pus to boil freely out, we next leave the patient quietly on the lounge an hour or two. Then with a small syringe insert about ten minims of a solution of bichloride of mercury of the strength of one part to three thousand of water. Repeat this once in about three or five days, taking pains not to throw large quantities of irritating solutions through into the rectum. This procedure alone will cure a considerable proportion of cases. But, if greater thoroughness is required, some advantage will be gained by taking Allingham's rectal speculum, and, exposing the internal orifice of the fistula, touch the opening with a stick of nitrate of silver, where it enters the rectum, and place the patient in bed with a sheaf of three soft rubber catheters, lying side by side in the rectum, to give exit to the gases and mucus. The bowels should be previously emptied with a cathartic.

There has been a very general opinion in the profession that it is not expedient to cure a fistula where the patient is inclined to tuberculosis. Dr. E. E. Glover, of Terre Haute, Ind., has taken the pains to ascertain of a large number of surgeons, on both continents, their opinion on this subject, by which he discovers that there is apparently a very great change of opinion on this question. He finds that those who reply to the question as to whether they would operate in tuberculous cases, the following say yes: Allingham, Agnew, Andrews, Brinton, Brodie, Borck, Bonteson, Solis Cohen, Cole, Francis Delafield, Eastman, Englemann, Gunn, Hamilton, E. F. Ingals, Lane, Linthicum, McGuire, Mathews, Moore, Owens, Prewitt, Peck, Reamy, Sayre, T. G. Richardson, of New Orleans; Roberts, of Philadelphia; Wight, Wilson, Varich and Taylor.

My own opinion is that there is no objection to curing the fistula in such cases. On the contrary, it is beneficial to the patient to do so. But it is true that where it is done by incision the wounds do not always heal well, and if the patient has but a year or two to live on account of his tuberculosis, it seems scarcely worth while to submit to the annoyance of the operation. But this would be no reason why he might not be advantageously treated by gentle and non-operative methods, such as we have described.—*E. Andrews, M. D., L.L. D., Chicago Medical Journal and Examiner.*

THE TREATMENT OF GLEET.—Mr. F. Swinford Edwards writes: In my experience, injections and medicines by the mouth are usually of but little avail. Speaking generally, gleet depends upon tonic contraction of the urethra, whether congenital or acquired, and this contraction is most often to be found at the meatus, where it is usually congenital. I have several times found a gleet, also both penile and perineal fistulæ, due to a stricture of so-called large calibre, where the patient had been assured he could not be the subject of stricture because, forsooth, a number twelve English catheter had been passed easily! If the gleet be due to a contracted meatus, this should be incised at once, and dilatation kept up by the daily passage of a full-sized metal instrument, limited to the penile urethra. Where no stricture has been made out after a careful examination of the canal by means of a urethrometer, I have several times known a gleet of long duration cured by one or two sittings by the passage of a metal sound or bougie, varying in size from twenty-four to thirty (French scale)—equal in size to from fourteen to eighteen (English) —smeared with this ointment: Pulv. iodoformi two drachms; ung. Dresinæ ad ℥i.

To sum up. Gleet, in nine cases out of ten, is due to stricture, though possibly slight, the removal of which generally suffices to cure the gleet. Should it not, I advise the passage of full-sized metal bougies, with the above mentioned ointment, twice a week. In a considerable experience of these cases I can only recall two failures after the employment of this treatment, and these I succeeded in curing by means of electrolysis in the deep urethra.

Mr. A. Bernard: I have found that chronic cases of gleet are eventually cured by systematically dilating the urethra with a large-sized metallic bougie, and, when possible, by daily washing out the passage with water the chill from which has been removed. I also recommend the patient to introduce an iodoform bougie, three inches or so in length, every alternate night. He should be warned against perpetually examining the penis; if he let it alone for a few days, he will reap the benefit of his self denial. Cold affusion, especially sea-bathing, is decidedly useful. Strict attention to regimen should be enforced, and in many cases Guinness's or London stout may be taken at meal-time with great benefit.

Surgeon W. Watson Pike, M. S.: Paint the under surface of the penis with liquor epispasticus to produce vesication. I have never seen a gleet last more than a fortnight after this treatment was adopted.

Dr. Clements Hailes: There are few of us who have had any experience worth mentioning in the treatment of gleet, who have not met with some most obstinate cases. Great attention is generally paid to the local treatment of gleet; but this is often of no avail, unless combined with suitable constitutional treatment, by which I mean not only careful regulation of diet, avoidance of irritating dishes, malt liquors, acid wines, coffee, etc., and all enervating excesses, but the correction of any existing dyscrasia, such as syphilis, gout, rheumatism and struma.

After the failure of injections, passage of bougies, etc., I have found, in cases with even only an indirect gouty history, it yield to a course of iodide of potassium and colchicum, and those with a similar history of struma to cod-liver oil and iodide of iron. Sometimes, when other modes of injection fail, a soft rubber catheter, with extra holes smoothly punched in its distal extremity, passed up to the prostatic portion of the urethra, and the injection carefully thrown up it by means of a ball-syringe with vulcanite nozzle, may be found useful; and after the failure of the numerous substances I have known the extract of pinus Canadensis (Kennedy), diluted with eight parts of water, cure rapidly, one injection a day being enough—in fact better than two.

One very obstinate case I had last year, after injections and careful constitutional treatment failed, as well as the dilatation of a slight stricture, yielded in a few days to drachm doses of the liquid extract of damiana. There was a persistent glairy mucous discharge at the meatus every morning, following a gonorrhea complicated with epididymitis. This discharge had existed for about six months, and contained mucus and a few pus-cells, but no spermatozoa—*Brit. Med. Jour.*

A NEW OPERATIVE PROCEDURE IN THE TREATMENT OF HERNIA.—The results of herniotomy, as at present practiced, are far from satisfactory, for, although the operation is undoubtedly efficacious in saving many lives that would otherwise be sacrificed, the death-rate following its performance is not inconsiderable. For this reason a new method, advanced by Dr. A. C. Bernays, and described in the St. Louis *Medical and Surgical Journal* for May, 1887, would seem to be worthy of the attention of surgeons.

The operation,, which consists simply in the subcutaneous tenotomy of Poupart's ligament, is described by Dr. Bernays as follows: A small incision, one-eighth of an inch in length, is made through the skin only, in a vertical direction, exactly in the inguinal fold. Next a probe-pointed knife is pushed through the subcutaneous fatty tissues under Poupart's ligament, which is found tense, and, by pressing the ligament against the edge of the knife from without with the left hand, while the right hand holds the tenotome, the ligament is cut. The knife is withdrawn as soon as the resisting ligament is cut. If, after the probe-pointed knife is introduced, Poupart's ligament is found relaxed, it should be immediately withdrawn; for, in all probability, the case is then one in which the strangulation is caused by the sac itself, and its cause is not to be sought for in the inguinal or femoral canal. After the ligament is cut, the hernia will, it is stated, almost immediately slip back, if the patient is not too deeply anesthetized, or it can be returned to the abdominal cavity with the greatest ease by manipulation.

The after-treatment must consist of perfect rest in a recumbent position, in order that union of the cut ends of the ligament may take place. Judging from the experience of tenotomy upon other tendons, one week ought to be sufficient in most cases to achieve an organization of the lymph which will be poured out between the cut ends.

The author recommends that the incision be made about an inch from the hernial protrusion in the direction of the spine of the ilium, though he thinks it quite possible that an incision of the lateral half, or nearer the spine of the ilium, will perhaps answer as good a purpose as a division of the median portion of Poupart's ligament nearer the seat of strangulation. The effect of dividing the ligament is a complete relaxation of the external and internal ring and all intermediate parts of the canal, as well as of Gimbernat's ligament and the femoral ring.

The operation is certainly simple and easy of performance, and would seem to be devoid of danger. In the two cases in which Dr. Bernays had employed it, at the time his article was written, the results, both immediate and remote, were entirely satisfactory.—*Medical Record.*

POINTS IN LAPAROTOMY FOR VISCERAL INJURIES.—1. There are many viscera in the abdomen which are practicably immovable—so immovable as to forbid operation upon them through the median line. When a gunshot wound is so located and so directed as to make the injury of an immovable viscus probable, the external incision should be made with reference to that fact.

2. The course of a gunshot wound is determined, not by chance, but by the operation of immutable laws.

3. When a gunshot is deflected from its course, it is always at an acute angle, and when deflected by a very soft substance, of little resistant power, the angle of deflection must be exceedingly small. When, therefore, a gunshot passes into the abdominal cavity, the deflection of the ball, from the time it leaves the aperture of entrance until it strikes the opposite wall, cannot be sufficient to appreciably alter its course.

4. The initial direction of the ball through the abdominal wall indicates very nearly its subsequent direction through the abdominal cavity. The careful study of the wound of entrance is, therefore, of the greatest importance, and no surgeon should open the abdomen for the repair of visceral wounds without first exploring the wound of entrance sufficiently to make sure of its course through the parietes.

5. The ball, after passing through the abdominal cavity, may be deflected by the bones or soft tissues, but as it, in the vast majority of cases, pursues the remainder of its course outside of the abdominal cavity, these deflections should have no influence in determining the line of incision.

6. Gunshot wounds of tortuous course frequently owe their apparent deviations from the straight line to a change in the shape of the abdominal wall subsequent to the shooting.

7. In general, the course of the bullet through the abdominal wall, prolonged by a line drawn on the external abdominal surface, will indicate the course of the bullet through the cavity if its velocity is great. If at angles of five, or of not more than ten degrees, with this line two other lines are drawn on either side of it, beginning at the wound of entrance, we will have represented on the abdominal surface the greatest deflections of which a bullet is capable during its passage through the abdominal cavity. An incision, therefore, along the whole length of the first straight line could not fail to uncover every part of the course of the

ball, provided that there had been no subsequent displacement of the injured tissues.

8. For this reason an incision beginning at the wound of entrance and prolonged to a sufficient distance in its course is often the very best which the surgeon can make. This is especially true of such wounds as, beginning at a distance from the linea alba, pass in a direction away from that line.

9. The immovable viscera can be best exposed by incisions made parallel to their long diameters.

10. When abdominal section is made for penetrating wounds, every organ and part of an organ which could possibly have lain in the path of the ball or weapon should be thoroughly explored by the surgeon, but to examine exposed viscera, or portions of viscera, which could not possibly have been injured would be an error in practice.

11. The prognosis of wounds of the empty stomach is not necessarily bad.

12. Large accumulations of fat in the abdominal wall and cavity may sometimes contra-indicate laparotomy for visceral wounds.—*Prof. McGraw, of Detroit, in Med. Record.*

SCRAPING IN SURGERY.—Mr. Pridgin Teale, whose method of treating caseous glands by scraping has met with such general approval, now proposes to apply the same plan to abscesses and carbuncle. He freely opens the abscess, and then scrapes the lining membrane vigorously with a scraper so as to remove as much sloughy tissue as possible. He next syringes out the cavity with a strong solution of carbolic acid, and applies iodoform in powder to every part of it. The treatment of carbuncle is similar:—a central crucial incision is made, and as much as possible of the diseased tissue removed by means of the scraper, additional incisions being made when all the diseased area cannot be reached from the original opening. Carbolic acid, or glycerine of carbolic acid, is then applied, the part is freely powdered with iodoform and covered with salicylic silk or some similar dressing. The result of this proceeding proves to be cessation of pain and feverishness, restoration of normal temperature, a rapid establishment of comfort, convalescence and healing. A similar mode of treatment is cases of strumous ulceration of the cornea has proved very successful, the pain and photophobia at once disappearing.—*Liverpool Med.-Chir. Journal.—Practitioner.*

POINTS IN THE TREATMENT OF GONORRHEA.—Dr. F. N. Otis lays down the following points in the treatment of gonorrhea.

1. Fully explain to the patient the inefficiency of popular remedies, and the dangers attending their use.
2. Secure the absolute personal cleanliness, thereby preventing infection of other parts, and insist upon as nearly perfect rest in bed as the exigencies of the case will permit.
3. Soak the penis frequently in water as hot as can be borne, but more especially during the act of micturition.
4. Recommend milk as a diet, and prescribe alkaline diuretics and mineral waters as internal medications.
5. Secure absolute freedom from sexual intercourse and from thoughts associated therewith.

Perfect faith in and obedience to these simple formulæ he insists will insure a sucessful ending of all uncomplicated cases before the beginning of the seventh week.

CORRESPONDENCE.

THE TOLEDO MEDICAL COLLEGE.

Editor Columbus Medical Journal:—

My attention has been called to a communication in your journal from Dr. Alfred W. Carey, relative to the Toledo Medical College.

He says: "Dr. Fisher, of Toledo, with myself, resigned from the Toledo Medical College on account of the irregular methods of conducting the institution."

This is an absolute falsehood. Neither he nor Dr. Fisher resigned.

At the beginning of the last session the chair of ophthalmology and otology was vacant, and this same Dr. Carey, who claimed to have made a special study of that department, made application for the place.

As the rules of the college do not allow those who are without experience in teaching, or those who are not well known to the trustees or faculty, to be elected to a professorship, Dr. Carey was, therefore, appointed *lecturer for one session only.* During the session he proved to be incompetent, and at the close, his time having expired by limitation, he failed to receive a reappointment.

As he never was a professor in the college, he had no right to hold a final examination, had no voice in the faculty, and consequently can have no "*original papers*" of which he speaks.

In reply to the assertion that "students without any literary qualifications were admitted without even the formality of an examination," is equally as false as when he stated he had resigned. He can know nothing from his own observation as to the admission of students, as his connection with the college in the above-named capacity, or any other, only dates from November, 1886, and not for any long period of time, as he would have your readers believe.

"The notes given for incorporation," etc. This shows plainly his utter ignorence of the organization of a college. If he has reference to the collaterals to secure a charter, I hardly think anything he may say will interfere with the college charter or injure the financial standing of the board of trustees of the Toledo Medical College.

He says: "There are too many rotten institutions which must be dealt with sooner or later."

He should have said, there are too many incompetent young men seeking professorships which they are in no wise capable of filling, and just such men often give a worthy institution a bad name.

If Dr. Carey held the college in such contempt, why did he ask, just before his exodus from Toledo, to be elected professor, saying he would then soon return.

Now, Mr. Editor, I do not propose to occupy any more time in replying to any correspondence from this man Carey, but if any of your readers would like to hear more of him, I suspect Mr. Buchannan, of Caro, ex-prosecuting attorney of Tuscola county, Michigan, will be so kind to them as he has been to the Toledo Medical College, and give them the information they want.

JONATHAN PRIEST,
168 Adams St., Toledo, O.

PUBLISHERS' DEPARTMENT.

We appreciate the spirit manifested in the following reply to one of our caustic duns:

Hann & Adair:

DEAR SIRS—If you have a *cheap* boy about your office, please send him here. I feel that I deserve a good kicking for neglecting to remit so long. Excuse me; will be more prompt in future. Enclosed find $4.00.

EDITORIAL DEPARTMENT.

J. F. BALDWIN, M. D., Columbus, - - - - EDITOR.

Communications, reports, etc., are solicited from all quarters.

Authors desiring reprints, will receive fifty, free of charge, *provided* the request for the same accompanies the article.

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We have *no authorized Collectors*, except such as carry properly made out bills, *countersigned by the Publishers.*

HANN & ADAIR, Publishers, Columbus, O.

THE BRITISH COMMISSION ON PASTEUR'S TREATMENT OF HYDROPHOBIA.—Pasteur's treatment of hydrophobia has by no means been accorded universal acceptance, even in France, where, indeed, it has met with some of its strongest opponents. In view of the great importance of the subject, a year ago last April a commission was appointed by the British government to inquire into the matter and report their findings. The membership of this commission consisted of Sir James Paget, Sir Joseph Lister, Sir Henry Roscoe, M. P.; Dr. Richard Quain, Dr. Lauder Brunton, Professor Burdon Sanderson, Dr. George Flemming, and Mr. Victor Horsley.

This committee has now reported. It declares that: "It may be deemed certain that M. Pasteur has discovered a method of protection from rabies comparable with that which vaccination affords against smallpox."

Of Pasteur's farther claim, that he had discovered a mode by which he could prevent the development of hydrophobia in persons already bitten by rabid animals, the commission says: "We think it certain that the inoculations practiced by Pasteur on persons bitten by rabid animals have prevented the occurrence of hydrophobia in a large proportion of those who, if they had not been inoculated, would have died from the disease."

As to whether his treatment has caused the death of some of his patients, the commission say that they find no reason to believe that the ordinary method employed has caused death, but they do think that the later, or 'intensive method,' may be responsible for some fatal results.

It will thus be seen that it most emphatically supports Pasteur's claims.

Practically the Commission recommends to the Government:

1. The destruction of all wandering, ownerless dogs.

2. Tax useless dogs so highly that their owners will not want them kept.

3. Prohibit the importation of dogs from countries where rabies prevails, or quarantine them.

4. Compel the use of muzzles in districts where rabies prevails.

These recommendations are good, without reference to the truth or falsity of Pasteur's theory.

The opponents of this system, however, charge that this Commission did its work hastily and slovenly, and that their report was chiefly entrusted to Mr. Victor Horsley, their secretary, a successful brain surgeon, but also an "offensive partisan" of Pasteur.

The Commission appointed by the Belgian government did not limit themselves to a couple of holiday jaunts to Paris, but remained on the ground for months. It has just made a report adversely to Pasteur's method, and the two chief experts on the commission even decide that it is entirely valueless.

PHYSIO-MEDICALISM.—For several years we have been trying to ascertain just what might be the real foundation of this ism, but our efforts have been in vain. But now all is clear. The *Physio-Medical Journal* of Indianapolis, the acknowledged organ of that school, in its August issue informs us that:

> "The fundamental doctrines of Physio-Medicalism are not pathological, but physiological. Disease is not vital action deranged, obstructed, increased or diminished. Irritation, fever and inflammation, terms used to signify increased, deranged, obstructed or accumulated vital action in the nervous or vascular systems, are no part or parcel of disease, but physiological symptoms of disease. Ulceration is always the direct cause of chemical force. If the above are the fundamental doctrines of Physio-Medicalism, the ulcer does not cause fever, specific germs do not cause fever. Specific poisons do not cause fever. But the vital force once and all the time causes it.
>
> "On the other hand, the fever does not cause the ulcer, as fever is sanative and curative once and always curative in its intention. But chemical forces are the cause of ulceration."

That is fearfully and wonderfully plain and simple: if one does not believe that "ulceration is always the direct cause of chemical force," he can surely find comfort in the reflection that "chemical force is the cause of ulceration."

NATHANIEL A. RANDOLPH, M. D., of Philadelphia, professor of hygiene in the University of Pennsylvania, and one of the editors and publishers of the "Medical and Surgical Reporter," of Philadelphia, was drowned while bathing at Atlantic City, N. J., on Sunday, the 21st ultt. The deceased was about thirty years of age, and was a man of much promise.

SUDDEN DEATH OF DR. WILLIAM A BYRD.—Dr. William A. Byrd, of Quincy, Ill., died on August 14, 1887, of sunstroke. He was forty-four years of age, and one of the most active and well known surgeons in that section of the State.

PERSONAL.—Dr. Lane, jr., and his students Morehead and Bradford, of Sago, O., will attend the lectures at Cincinnati this winter.

G. C. Watson and D. B. Best, students of Dr. Chisholm, New Concord, O., will attend lectures at the Starling, Columbus, O., the coming session.

G. W. Roller, a student of Dr. Chisholm, is rusticating in the South for the benefit of his health.

A NOVEL DEPARTURE IN ADVERTISING.—Believing that the advertising of medicinal preparations often fails of its purpose, viz.: to clearly and intelligently present to physicians their special advantages, pharmacal or therapeutic, on account of the fragmentary and imperfect manner in which the facts are usually conveyed in such advertisements, Parke, Davis & Co. propose to inaugurate rather a novel departure in advertising.

It is their intention to publish in the advertising pages they occupy in medical journals a series of what they term plain talks to physicians, in each issue taking up a certain class of preparations and pointing out the reasons why they deserve to be prescribed, until all their preparations shall have thus been presented.

The excellence of the products of this house are well known, and it is to be presumed that their long experience in the manufacture of medicines will enable them to say in these informal talks something of real interest and benefit to their medical friends.

BROMIDIA.—Messrs. Battle & Co., the manufacturers of this preparation, announce a decree by the Circuit Court of the United States, for the Eastern District of Pennsylvania, enjoining the firm of D. W. Gross & Son from "manufacturing, selling, or offering for sale, directly or indirectly, any medical preparation or compound manufactured by them or any other person than complainant, having affixed thereupon, or upon the bottles and packages containing the same, in any manner, the word 'bromidia,' or by affixing to bottles or packages containing any medical preparation not manufactured by complainant, any word which is a colorable imitation ot the word 'bromidia.'"

COMPOUND TABLET TRITURATES.—We have received a package of the above, representing several remedies, from Messrs. John Wyeth & Bro., of Philadelphia. In making these Triturates, the drug is reduced to a most minute subdivision, and then simply compressed into little tablets. Thus complete accuracy of dose is secured, with an easy mode of administration and immediate solubility in the stomach. Should any of our readers desire to test them, samples will be sent gratis by writing to Messrs. Wyeth & Bro.

REVIEWS AND BOOK NOTICES.

A System of Gynecology by American Authors. Edited by Matthew D. Mann, A.M., M.D, Professor of Obstetrics and Gynecology in the Medical Department of the University of Buffalo, N. Y. Vol. 1. Illustrated with three colored plates and 201 engravings on wood. Royal 8vo.; leather; pp. 789. Philadelphia: Lea Brothers & Co. 1887.

If there is any one field of medical practice that is distinctively American, it is that of Gynecology, for it is here that American skill and ingenuity have won their noblest triumphs. It is, therefore, peculiarly fitting that this work should be by *American* authors.

The contributors to the present volume are: Henry C. Coe, of New York; E. C. Dudley, of Chicago; H. J. Garrigues, of New York; E. H. Grandin, of New York; A. Reeves Jackson, of Chicago; E. W. Jenks, of Detroit; M. D. Mann, of Buffalo; R. B. Maury, of Memphis; C. D. Palmer, of Cincinnati; T. A. Reamy, of Cincinnati; A. D. Rockwell, of New York; A. J. C. Skene, of Brooklyn; E. Van de Warker, of Syracuse, and W. Gill Wylie, of New York. All these names are those of men universally recognized as competent to speak with authority.

A critical review of the volume is entirely uncalled for. Suffice it to say that it contains an historical sketch of American Gynecology; the development, anatomy and malformations of the female genitals; diagnosis; general considerations of Gynecological surgery; general therapeutics; electricity; menstruation and its disorders; sterility; diseases of the vulva; uterine inflammations; subinvolution; periuterine inflammation, and pelvic hematocele and hematomata.

The Practitioner's Handbook of Treatment; or, The Principles of Therapeutics. By J. Milner Fothergill, M. D., Physician to the City of London Hospital for Diseases of the Chest, Victoria Park, etc. Third American, from the third English edition. Philadelphia: Lea Brothers & Co., 1887; Columbus: Geo. H. Twiss. 8vo., pp. 660. Cloth, $3.75; leather, $4.75.

The author is undoubtedly one of the most attractive writers with which medical readers are familiar, his writings being marked rather by tact and shrewdness than by profundity.

In his preface to this book he says: "This work is not an imperfect Practice of Physic, but an attempt of an original character to explain the rationale of our therapeutic measures. First, the physiology of each subject is given, and then the pathology is reviewed, so far as they bear upon the treatment; next the action of the remedies is examined, after which their practical application in concrete prescriptions is furnished." "It is designed to furnish to the practitioner reasons for the faith that is in him; and is a work on medical tactics for the bedside, rather than for the examination table."

Two or three new chapters have been added in this edition, and serve to render it, if possible, even more valuable than its predecessor.

A Practical Treatise on Renal Diseases and Urinary Analysis. By William Henry Porter, M. D., Professor of Clinical Medicine and Pathology in the New York Post-Graduate Medical School and Hospital; Curator to the Presbyterian Hospital. One volume, 360 pages, 100 illustrations. New York. William Wood & Company.

The past few months have been unusually prolific in the production of books on diseases of the kidneys and urinary analysis. We are, therefore, inclined to question the propriety of the entrance into the field of a new candidate. But on examination we find abundant cause for welcoming Dr. Porter's modest work, as we find it based on autopsies of over one thousand subjects, where the kidneys were the main point of investigation.

The author has enjoyed an unusually extended experience in the treatment of these diseases, and he has done so to good purpose; being enabled to say positively what remedies—no matter how well recommended and time-honored—have proven inert, and what ones he has found to be valuable. His great aim has been to thoroughly *prove* all his statements.

The book is thoroughly good.

Elementary Microscopical Technology. A Manual for Students of Microscopy. In Three Parts. Part I. The Technical History of a Slide, from the Crude Materials to the Finished Mount. By Frank L. James, Ph.D., M. D., American Society of Microscopists, etc. 8vo., cloth, pp. 197. St. Louis Medical and Surgical Journal Company, Publishers, St. Louis, Mo., 1887.

The talented microscopist of the St. Louis *Medical and Surgibal Journal* has given us in this book a thoroughly instructive and entertaining monograph on microscopic technology. It is a most excellent work for those who are interested in microscopy, and we shall look with interest for the succeeding volumes.

The Treatment of Hemorrhoids by injections of carbolic acid and other substances. By Silas T. Yount, M. D., physician to St. Elizabeth Hospital; member American Medical Association, etc. 12mo., cloth, pp. 64. Lafayette, Ind.

The above is the title of a very excellent little monograph, giving full and explicit instructions in regard to the treatment of hemorrhoids by injections, based upon the author's extended personal experience.

A Year-Book of Treatment for 1886. A critical review for practitioners of medicine and surgery. Philadelphia: Lea Brothers & Co. 1887. Columbus: George H. Twiss. 8vo.; cloth; pp. 304; $1.25.

This is like the other volumes of this series, issued by the same house, which we have noticed annually as they have appeared.

Each department of practice is fully and concisely treated, such recent pathological and clinical work as bear directly on treatment being included.

A Handbook of General and Operative Gynecology, Volume 1. By Dr. A. Hegar (University of Freiburg) and Dr. R. Kattenbach (University of Giessen). In two volumes. This is also Vol. VI. of "A Cyclopedia of Obstetrics and Gynecology" (12 volumes, price $16.50), issued monthly during 1887. New York: William Wood & Company.

COLUMBUS

MEDICAL JOURNAL.

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COMMUNICATIONS.

A CASE OF TREPHINING,

Occurring in the Practice of FRANK J. WEED, M. D., Professor of the Principles of Surgery and Clinical Surgery, Medical Department of the University of Wooster, Cleveland, Ohio. Reported

BY CHAS. H. MERZ, M. D.,
Clinical Assistant to the Chair of Surgery.

The subject of this sketch was a boy, thirteen years of age, of German birth. He was admitted to the University Hospital on July 8th, 1887. When admitted, he was in a comatose condition. He could not be aroused by shouting close to his ear, nor did he shrink in the least from the pain inflicted by pinching or pricking him. Respiration was regular, but very labored. Pulse eighty and full. Pupils were equally dilated and immovable. Upon examination, several cicatrices were found upon the right side of the head in the temporal region, about the anterior inferior angle of the parietal bone, and a distinctly depressed area about 1 x 1.5 in. in extent.

Two small sinuses which were discharging pus were also discovered.

Patient rested quietly all night, but could not be made to swallow any food. About 7:30 A. M. he seemed to awaken, and commenced to sing, "Yankee Doodle." He lapsed into silence again, and in about half an hour cried out: "Look out for my hair; don't pull it!"

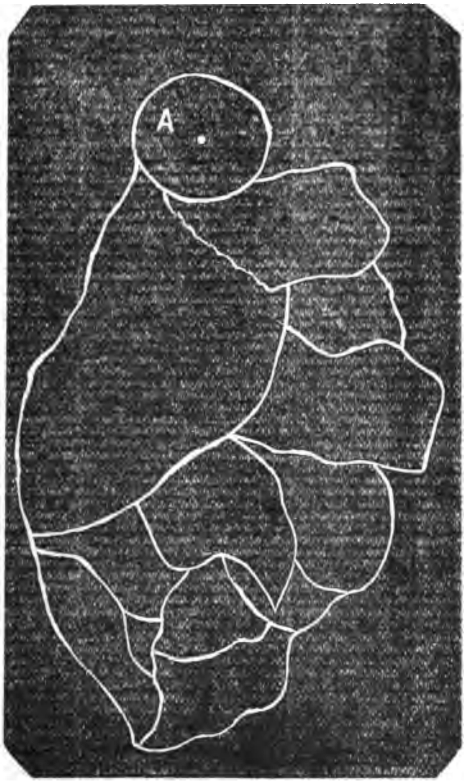
His former history, as given by the attending physician, Dr. Johnson, is as follows: Six weeks previous to his admission to the Hospital, he was kicked on the head by a horse which he had led to pasture. The soft parts were not extensively injured; a cut, about an inch long, and a punctured wound were all that could be discovered. He was injured about 6 P. M., and the doctor saw him about 10 P. M. During this interval he had been unconscious, but towards 10 o'clock the next morning the stupor had passed off. The diagnosis of fracture at that time was very difficult to make, and, as the boy continued to improve, he was not subjected to any surgical treatment.

Three or four days before he was admitted to the Hospital, exposure to the sun led to the development of unfavorable symptoms. He became partially unconscious, and, as his condition was growing more serious, he was brought to the Surgical Clinic of Dr. F. J. Weed, in the condition above described.

The objective examination upon the operating table confirmed the diagnosis of a depressed fracture of the skull, and made it evident that trephining was not only justifiable, but urgently necessary. The surface temperature, taken over the seat of injury, just previous to the operation, was 99.5° F. The surface thermometer used was Seguin's, manufactured by Tieman. After shaving the portion of the scalp over the depressed area, and cleansing thoroughly with bichloride (1–2000), a free incision was made down through the soft parts and periosteum. The latter was carefully loosened and reflected, and the trephine applied to the solid bone. From this point the elevator was used in removing the fragments. At the point of most complete fracture a collection of pus was found. Thirteen fragments were removed. The bones were crushed into small pieces, the largest of which was not more than an inch in length, and from that to the size of a pin head. Some of the pointed pieces had penetrated the dura-mater and lay imbedded in the brain, while two teaspoonfuls of pus and brain matter oozed out.

Treatment consisted in removing all the fragments of bone which might afterward become necrosed and cause trouble, and in rasping the edges of the remaining bone. After removing every particle of foreign matter, the wound was irrigated with a solution of mercuric bichloride (1-3000). Iodoform was dusted over it, the flaps replaced and held by a wet roller.

The boy was removed to his cot and rallied well from the operation. He took nourishment freely, and fortunately manifested no bad symptoms from the anesthetic employed (chloroform). The evening temperature was 100° F., and the next morning 99°. Leiter's cold water coil was applied to the head for the five days succeeding the operation, but there was no inflammatory reaction. The bromides of sodium and lithium were administered to diminish blood pressure and produce sleep.



Showing shape and size of the fragments removed.
A.—Point at which trephine was applied.

On the fifth day, local symptoms of an accumulation of pus were noticed, and one of the flaps was loosened from its attachments and the pus evacuated. A hernia cerebri developed on the sixth day, and its general outline is shown in the cut. Pressure was made for several days by means of a piece of gutta percha, about three inches square, which was placed directly over the hernia and held in place by a roller. Under this treatment the hernia gradually disappeared.

The fragments of bone removed were thirteen in number, and gave an area of 3¼ square inches.

The necessity for antiseptic treatment seems to be specially important in brain surgery. In this case, it seems very probable that the risks were diminished and success made more certain by its employment. The wound was always dressed under the carbolic spray, and iodoform was used freely.

At this date, 106 days after the operation, the boy is well, and has so far recovered his former strength as to be able to serve as an errand boy about the Hospital. He has suffered in no way from the injury, being bright and active as he was before it was received. The wound has closed, with the exception of a slight line of granulation, which has so far remained uncovered.

A careful examination of the wound was recently made. It was found to be located one inch anterior to and on a level with the lower end of the Rolandic line. This would be a little above the speech center, and over the motor center for the face (Seguin), and in fact the only cranial symptoms observed would emanate from injury to this point. A slight paralysis of the facial nerve on the left side still remains. It affects more particularly the *orbicularis oris* muscle. When the face is in perfect repose there is very little deformity, but when the patient laughs or speaks it becomes very apparent.

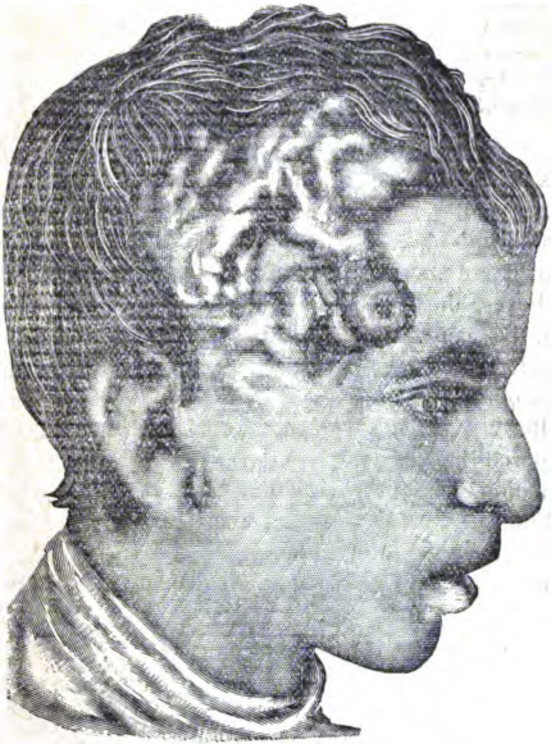
While the indications for trephining were comparatively plain in this case, they are not always so. The surgical treatment of injuries to the brain is daily becoming more clearly defined, and in many recent cases the advantages attendant upon operative procedures more than counterbalance the risks and dangers incurred.

In Pepper's System of Medicine, Vol. V, Dr. E. C. Seguin says:

> "The indications for trephining or raising bone after cranial injuries, for the relief of symptoms of cranial irritation, compression or degeneration, may be conditionally stated as follows:
>
> "(*a*) When aphasia supervenes immediately, or within a few days or weeks after an injury of the anterior portion of the head on the left side. It is extremely probable in the first case, a clot or bony spiculum will be found compressing the speech center; in the second case, that an abscess has been formed in or near it. (Broca's case.) * * * (*c*) In conditions of stupor and coma, after cranial injuries, sometimes without external wound, in which meningeal hemorrhage is the cause of impending death, the discovery of slight hemiplegia should justify trephining, planned according to the topographic rules above laid down (Weir's case, 1882). In some cases, latent hemiplegia may be discovered

by the presence of an erythematous flush on one buttock, or a slightly increased peripheral temperature taken between the fingers or toes."

Few cases are recorded of extensive injuries received in this region. M. Herpin has recorded a case involving the squamous portion of the temporal and greater wing of the sphenoid. The man did not lose consciousness, and until the time of his death, four days later, no symptoms were observed either as regarded motility or sensibility (Ferrier).



From a photograph taken on the seventh day—showing location and extent of the wound.

A case is reported by Alcock (*Lancet*, Maich 10, '77), in which the injury was received in the squamous portion of the temporal bone. The only indication as regards sensory affection was want of auditory perception at first. He died on the thirty-third day without being affected with paralysis.

The absence of motor and sensory symptoms in the present case can only be accounted for by the supposition that the lesion was cortical and exterior to the motor zone, for the injury was an extensive one, and located in an important region. But recently a memoir has been published by MM. Charcot and Pitres, in which are recorded a number of cases of lesions of the cortex exterior to the motor zone, in which no motor derangement occurred. They arrive at the following conclusions:

> "There exist in the cortex of the cerebral hemispheres, regions which have no relation with the power of motion, and in which, consequently, lesions may be produced without permanent trouble of the motor functions. These regions comprise the occipital lobe, the parietal lobes (except, perhaps, their feet), the quadrilateral lobe, and the cuneiform lobe."

WHAT'S IN A NAME?—Those who furnish us with medicine have, in my time, changed the title of their business more than once. At first it was "apothecary," meaning a man who kept things in their places, a correct term, if not very descriptive. It was probably derived from the number of boxes, drawers, jars, and bottles in their stores. But, for some reason, this name was changed to "druggist," to indicate, probably, *the kind* of substances thus stored away. But, tired of these names, we find now that our friends often call themselves "chemists" and "pharmacists." But a "chemist" is not one who sells drugs, but one who analyzes materials and examines elementary substances to find the law of their combination. "Pharmacist" is still worse, for that means "poisoner"; and though some persons contend that all medicines are poisons, we would hardly expect that those who sell them would, of their own accord, admit that charge by the name they assume.—*James Freeman Clarke, D. D., in The Independent.*

HYDROCHLORIC ACID TO DISSOLVE NECROSED BONE.—Dr. Edmund Andrews, of Chicago, recommends (*Jour. Am. Med. Ass.*) the use of irrigations of dilute hydrochloric acid in affecting removal of sequestra. The acid should be as strong as the patient can bear without too much pain, usually between one-fourth and one-sixteenth the officinal *dilute* acid. *Through* irrigation should be provided for, or, if but one opening exists, a catheter may be passed to the bottom and the fluid introduced through it. By the use of a properly arranged fountain syringe the irrigation can be kept up for hours at a time. The earthy matter being dissolved out, the animal matter is quickly absorbed by the granulations.

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℞ Phosphori 1-100 gr.; Ext. Nucis Vomicæ ¼ gr.

DOSE.—One or two pills, to be taken three times a day, after meals.

THERAPEUTICS.—As a nerve tonic and stimulant this form of pills is well adapted for such nervous disorders as are associated with impaired nutrition and spinal debility, increasing the appetite and stimulating digestion.

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THERAPEUTICS.—The therapeutic action of this combination of tonics, augmented by the specific effect of phosphorus, on the nervous system, may be readily appreciated.

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SURGERY.

ABDOMINAL SURGERY, DR. CHARLES T. PARKES, of Chicago, Ill.—The subject of gunshot wounds of the abdomen had of recent years been more generally understood; he wished to place in review cases of other gentlemen and those coming under his own experience, so that deductions could be made. Up to 1885 the profession had not looked it in the face; but a few years ago surgeons were opposed to any interference. In 1884 the speaker read a paper upon this subject before the American Medical Association, since which time 36 cases have been reported, recovery taking place in 9 of them, and since coming here he had heard of two more, making 38 reported cases and 11 recoveries. The operation in these cases has been performed under all sorts of surroundings, and the cases were not chosen ones. The writer considered that every case should be reported, whether resulting in recovery or death, in order to secure correct statistics.

The diagnosis with the abdomen unopened was at best uncertain, but when to open the future must decide. He considered that a gunshot wound with but one opening would give us one hope that the ball might not have passed into the abdominal cavity; the location of the point of entrance and the direction the ball passed, together with weight and distance from which the ball was fired, materially increased the difficulty of diagnosis. The symptoms of shock and hemorrhage were also important factors; also the natural temperament of the patient when in normal health. The writer considered that after an operation had been decided upon, the incision should be made in the mesian line, as giving greater access to all parts of the abdominal cavity. If the ball passes up through the diaphragm he considered there was little to be done. Shock, he considered, was no certain indication of perforation having taken place, and that it was a very difficult matter to know when to decline to operate, as many cases that have died have revealed at the post-mortem that the patient could have been saved had an operation been performed.

AN EXPERIMENTAL CONTRIBUTION TO INTESTINAL SURGERY, WITH SPECIAL REFERENCE TO THE TREATMENT OF INTESTINAL OBSTRUCTION.—DR. NICHOLAS SENN, of Milwaukee, Wis. ARTIFICIAL INTESTINAL OBSTRUCTION STENOSIS.—(*a*) *Partial enterectomy and longitudinal suturing of wound.* Traumatic stenosis from this cause becomes a source of danger from obstruction or perforation in all cases where the lumen of the bowel is reduced more than one-half in size. Longitudinal suturing of wounds on the mesenteric side of the intestine should never be practiced, as such a procedure is invariably followed by gangrene and perforation by intercepting the vascular supply to the portion of bowel which corresponds to the mesenteric defect.

(*b*) *Circular constriction of intestine.* The immediate cause of gangrene in circular constriction of a loop of intestine is due to obstruction of the venous circulation, and takes place first at a point most remote from the cause of the obstruction.

2. FLEXION.—(*a*) *Flexion produced by partial enterectomy and transverse suturing of wound.* On the convex surface of the bowel a defect an inch in width can be closed by transverse suturing without causing obstruction by flexion. In such cases the stenosis is subsequently corrected by a compensating bulging, or dilatation, of the mesenteric side of the bowel. Closing a wound of such dimensions on the mesenteric side of the bowel by transverse suturing may give rise to intestinal obstruction by flexion, and to gangrene and perforation by seriously impairing the arterial supply to, and venous return from, the portion of bowel corresponding with the mesenteric defect.

(*b*) *Flexion caused by inflammatory and other extrinsic causes* gives rise to intestinal obstruction only in case the functional capacity of the flexed portion of the bowel has been diminished or suspended by the causes which have produced the flexion, or by subsequent causes independently of the flexion.

3. VOLVULUS. — As in flexion a volvulus gives rise to symptoms of obstruction when the causes which have given rise to a rotation upon its axis of a loop of bowel have at the same time produced an impairment or suspension of peristalsis in the portion of bowel which constitutes the volvulus, or when a diminution or suspension of peristalsis follows in consequence of the rotation.

4. INVAGINATION.—Accumulation of intestinal contents above the seat of invagination is one of the most important factors which prevents spontaneous disinvagination, and which determines gangrene of the intussuscipiens.

Spontaneous reduction is not more frequent in ascending than descending invagination.

The immediate cause of gangrene of the intussuscipiens is obstruction to the return of venous blood by constriction at the neck of the intussuscipiens. Ileo-cecal invagination, when recent, can frequently be reduced by distentions of the colon and rectum with water, but this method of reduction must be practiced with great care and gentleness, as over-distention of the colon and rectum is productive of multiple longitudinal lacerations of the peritoneal coat, an accident which is followed by the gravest consequences.

The competency of the ileo-cecal valve can only be overcome by over-distention of the cecum, and is effected by a mechanical separation of the margins of the valve; consequently it is imprudent to attempt treatment of intestinal obstruction beyond the ileo-cecal valve by injections per rectum.

ENTERECTOMY.—Resection of more than six feet of the small intestine in dogs is uniformly fatal. The cause of death in such cases is always attributable to the immediate effects of the trauma. Resection of more than four feet of the small intestine in dogs is incompatible with normal digestion, absorption and nutrition, and often results in death from marasmus.

In cases of extensive intestinal resection the remaining portion of the intestinal tract undergoes compensatory hypertrophy, which, macroscopically, is shown by thickening of the intestinal coats and increased vascularization.

PHYSIOLOGICAL EXCLUSION.—Physiological exclusion of an extensive portion of the intestinal tract does not impair digestion, absorption and nutrition as seriously as the removal of a similar portion by resection.

Fecal accumulation does not take place in the excluded portion of the intestinal canal.

The excluded portion of the bowel undergoes progressive atrophy.

CIRCULAR ENTERORRAPHY.—A modification of Jobert's invagination-suture by lining the intussusceptum with a thin, flexible rubber ring, and the substitution of catgut for silk sutures is preferable to Czerny-Lembert sutures.

The line of suturing on neck of intussuscipiens should be covered by a flap or graft of omentum in all cases of circular resection, as this procedure furnishes an additional protection against perforation.

In circular enterorrhaphy, continuity of the peritoneal surface should be secured where the mesentery is detached by uniting the peritoneum with a fine catgut suture before the bowel is united, as this modification of the ordinary method furnishes better security against perforation on the mesenteric side.

INTESTINAL ANASTOMOSIS.—The formation of a fistulous communication between the bowel above and below the seat of obstruction should take the place of resection and circular enterorrhaphy in all cases where it is impossible or impracticable to remove the cause of obstruction, or where the pathological conditions which have given rise to the obstruction do not constitute an intrinsic source of danger. Gastro-enterostomy and jejuno-ileostomy should always be made by approximation with partially or completely decalcified perforated bone plates.

In making an intestinal anastomosis for obstructions in the cecum, or colon, the communication above and below the seat of obstruction can be established by apposition with decalcified perforated bone plates, or by literal inplantation of the ileum into the colon or rectum. An ileo-colostomy, or ileo-rectostomy, by approximation with decalcified perforated bone plates or lateral implantation, should be done in all cases of irreducible ileo-cecal invaginations where the local signs do not indicate the existence, or occurrence, of gangrene and perforation. In all cases of threatened gangrene and perforation the invaginated portion should be excised, both ends of the bowel closed, and the continuity of the intestinal canal restored by making an ileo-colostomy by approximation with perforated decalcified bone plates, or by lateral implantation. The restoration of the continuity of the intestinal canal by perforated approximation plates, or lateral implantation, should be resorted to in all cases where circular enterorrhaphy is impossible on account of the difference in the size of the lumina of the two ends of the bowel.

In cases of multiple gunshot wounds of the intestines involving the lateral, or convex, side of the bowel, the formation of intestinal anastomosis by perforated decalcified bone plates should be preferred to suturing, as this procedure is equally, if not more safe, and requires less time.

ADHESION EXPERIMENTS.—Definitive healing of an intestinal wound is only completed after the formation of a network of new vessels in the product of tissue-proliferation from the approximated serous surfaces. Under favorable circumstances quite firm adhesions are formed between the peritoneal surfaces within six to twelve hours which effectually resist the pressure from within outward. Scarification of the peritoneum at the seat of approximation hastens the formation of adhesions and the definitive healing of intestinal wounds.

Omental grafts, from one to two inches in width, and sufficiently long to completely encircle the bowel, retain their vitality, become firmly adherent in from twelve to eighteen hours, and are freely supplied with blood vessels in from twenty-four to forty-eight hours. Omental transplantation, or omental grafting, should be done in every circular resection, or suturing of large intestinal wounds, as this procedure favors the healing of the visceral wound, and furnishes an additional protection against perforation.

The speaker presented some valuable specimens in which the operation had been performed on dogs; these specimens fully illustrated the value of the method advocated, and its entire feasibility, the union in some of these specimens being most remarkable. He called attention to its use in stenosis of the pyloric orifice. The duodenum, or the first convenient coil of intestine, being connected with the stomach by the method advocated, adhesions would form in from fourteen to twenty-four hours. The adhesions in the specimens shown were wonderfully firm and strong.

INTUBATION OF THE LARYNX, DR. JOSEPH O'DWYER, of New York.—Intubation is apparently, but not really, a simple operation. With more than the usual dexterity and coolness, and an easy case, it will be called by the physician who tries for the first time, a very simple thing. With less dexterity and a difficult case to manage, it will be called a difficult operation.

When established, and perfected, and in common use, intubation can never be considered a satisfactory remedy, in view of the complications and the very nature of membranous croup. The first results, if good, will create enthusiasm; if bad, distrust.

In comparing tracheotomy and intubation, the question is not which will save most life in a given number of cases submitted to treatment, but which operation can be performed or will be permitted in the greatest number of cases.

INTUBATION OF THE LARYNX, ITS ADVANTAGES AND DISADVANTAGES, WITH STATISTICS OF THE OPERATION, DR. F. E. WAXHAM, of Chicago, Ill.—While strongly advocating intubation, the writer would not overlook its disadvantages. The operation is a difficult one in its performance. The soft tissues may be wounded, or the trachea perforated. It is more difficult to extract than to insert the tube. A serious trouble may ensue from the difficulty in swallowing when the tube is in place. These are the dangers. None are so grave that they cannot be overcome. On the other hand, it has many advantages over tracheotomy. It can be done almost instantly. There is no loss of blood, no pain, no shock, no open wound with the possibility of septicemia or erysipelas. There is no drying of mucus in the tube, and no necessity for cleansing the tube. Less attention is required in the after-treatment. Finally, we can save as large a number of adults as, and a much larger number of children than, by tracheotomy.

After presenting a series of statistics, the writer closed with the statement that intubation has been performed one thousand times within two years, and that two hundred and sixty-nine lives have been saved from certain death.

DR. CHARLES G. JENNINGS, of Detroit, Mich., believed this method to be of great value. His own experience, however, had led him to prefer tracheotomy. His thirty-six tracheotomies had been followed by seventeen recoveries, while he had applied the tube in twelve cases without a recovery. Dr. Waxham's statistics contain about one thousand cases, with twenty-six per cent. of recoveries. He believed that certain operators in both operations have records far above the average, and that the successful tracheotomists have a larger proportion of recoveries than the physicians performing intubation who rank as the most successful. He believed that the personal equation is an important element in considering the comparative values of the two procedures.

Although intubation possesses the advantages alleged in the papers read before the Section, it remains true that tracheotomy has advantages that should not be forgotten. After an incision the trachea is accessible for the removal of membrane and dried mucus, and direct medication by instillations and powders. Adequate nourishment after intubation is almost impossible, while there is no such difficulty after tracheotomy.

An obvious advantage of intubation is that it can be performed by many physicians who would not undertake a tracheotomy, and in this way relief, impossible otherwise, will be afforded in a great many cases. His own experience, however, leads him to urge tracheotomy in all cases offering reasonable chances of success, and to reserve intubation for the cases in which operative interference will give nothing more than euthanasia, and for those patients whose parents refuse to consent to tracheotomy.

DR. T. J. PITNER, of Jacksonville, Ill., questioned the correctness of Dr. Waxham's closing statement that the two hundred and forty-nine cases of recovery following intubation were so many lives saved by the operation. This assumes that all cases of stenosis from croup or diphtheria are, without operative procedures, necessarily fatal. He did not, however, question the utility and great importance of this operation, which appears to him to be preferable to tracheotomy.

DR. NORTHRUP stated, in answer to questions, that in thirty-three cases he had not failed in a single case to fully and promptly relieve the dyspnea. He had met with no accident, and probably gentlemen present had in the aggregate used the tube several hundred times, and never met with untoward accidents. He thought the only real drawback to the success of intubation lay in its interference with feeding. It is sometimes difficult to keep up full nutrition when swallowing is so impeded.

In one of his cases the physician in charge had retired hopeless, without doing tracheotomy, and being ignorant of intubation. The child was exhausted and comatose. The tube was inserted. The child returned to consciousness. At the end of forty hours he coughed out the tube. It was not reapplied, and the child made a perfect recovery.

DR. O'DWYER, in answer to questions, said that, in his opinion, statistics will be of very little value in settling the question between tracheotomy and intubation until a very large number have been obtained. Aside from the question of saving life, intubation will be resorted to in the most hopeless cases, those in which tracheotomy would not be thought of, for the sake of securing euthanasia.

SECTION OF CONTRACTURED TISSUES ESSENTIAL BEFORE MECHANICAL TREATMENT CAN BE EFFECTUAL. DR. LEWIS A. SAYRE of New York—The writer defined his position as follows: A contrac*ted* tissue is one that is simply shortened, but which can be elongated by careful, continuous, and judiciously applied traction and manipulation. A contrac*tured* tissue is one which has undergone some change of structure in the fibrillæ of the muscles, and which cannot be elongated or stretched. Distortions or deformities which are the result of contrac*tured* tissue can only be removed by forcible rupture of the same, or by cutting before traction is applied; but similar deformities resulting from simply contracted tissue may frequently be rectified by manipulation and constant traction, properly applied, without section of the tissue. How are we to know whether the tissue is *contracted* or *contractured?* If in any case of club-foot or other deformity from muscular contraction we stretch the shortened parts to their utmost tension by manual force or mechanical aids, and when the parts are thus stretched we suddenly add to the tension by pressing with the thumb or finger on the part thus stretched, or by pinching the stretched tissue between the thumb and finger, and if by either of these acts we produce a *reflex* spasm, or sudden shivering of the whole body, that muscle, tendon, or tissue, thus yielding this *reflex spasm* is *contrac-*

tured, and can not be elongated *without severing* of its fibres. If, on the contrary, when the test is applied as above described, no *reflex* irritation or muscular spasm is produced, it is evident that the parts are simply *contracted,* and can be further elongated by persistent constant traction and proper manipulation, and therefore do not require divulsion.

To attempt to stretch a contractured tissue causes unnecessary pain, and exposes the patient to the risk of disturbances of the nervous system through long-continued irritation. In all such cases it is infinitely safer to make such division by subcutaneous section than by manual or mechanical force. Treatment is to be completed by massage, friction, active and passive motion, electricity, and such mechanical appliances as may be required in each case. A number of illustrative cases were given.

DR. A. B. JUDSON, of New York, thought that the treatment of congenital club-foot is divided into two stages by the arrival of the time when the child begins to try to stand. Before this time, when the child's weight does not interfere with corrective procedures, the varus should be reduced by whatever means may be at hand—a succession of carved wood splints, tractable metal splints, adhesive plaster, plaster of paris splints, the artificial muscles; or a combination of these methods, one with another, or with tenotomy, as the case may require. Whatever the plan adopted, by the time the child begins to put his weight on the foot, the varus should be so far reduced that the sole is presented squarely to the ground. Of course, if nothing more be done, the varus would return when walking begins, and would soon be as bad as ever; and what is now required in this, the second stage, is a slight splint extending up the inner side of the foot and leg, and so fitted with buckles and webbing that pressure may be distributed where the steel is directly applied, and concentrated on the outer side of the ankle, where it can be easily borne, because made by webbing-straps. The object of the splint is simply to give the foot a push toward valgus, so that when the child steps the sole presents squarely to the ground, or a little more than squarely. Every foot-fall will then be an impulse in the right direction, applied with the force of the rapidly increasing weight of the body. With tractable metal in the splint, varus may be absolutely reduced, and, if it were desirable, even valgus could be produced.

MR. EDMUND OWEN, of London, stated that he was heartily devoted to what he believed was rightly called the American plan. The old plan consisted in dividing first the tendon of the tibialis posticus, and perhaps also that of the flexor longus digitorum, and then in putting the foot up in only a slightly improved position; then, when it was supposed that plastic effusion had connected the divided ends of the tendon, to begin with Scarpa's shoe to correct the inversion. Later on, perhaps weeks afterward, when the inversion had been fairly dealt with, the tendon of Achilles was divided, and in a few days flexion of the foot was started with. Mr. Owen considered that this plan was now, even in England, giving place to the method of dividing all the tendons at one and the same time; and not only that, but bands of fascia and ligament were also divided. He called particular attention to the need of dividing the anterior part of the internal lateral ligament of the ankle-joint, which was much concerned in keeping the front part of the tarsus flexed and inverted on the head of the astragalus. Scarpa's shoe should, together with mechanical spinal supports, be relegated to the limbo of extinct surgical instruments; the introduction of the plaster of Paris treatment had rendered them superfluous. There need be no fear of failure of union occurring in the divided tendon after putting the foot at once in the correct position; plastic effusion and blood in the sheath of the tendon quickly prepared the way for an efficient splicing of the tendon.

MR. OWEN could not accept entirely all that Professor Sayre said as to the difference between contractured and contracted tendons; he would not deny its existence in fact, but he was not prepared entirely to accept it. He commended, in the highest terms, Dr. Sayre's teaching and his practice.

DR. HINGSTON, of Montreal, Canada, stated that formerly it had been his custom to delay tenotomy till the period of teething, at least; but he had long ago accepted the dictum of Dr. Sayre, that one is warranted in delaying the operation only till the tenotome can be procured. He had followed this rule with almost invariable satisfaction.

DR. D. A. K. STEELE, of Chicago, advocated the plan of treatment which had been outlined by Mr. Owen. His experience had led him to the adoption of the following rules of practice: (1) Operate as early as the child is brought. (2) Divide all tissues that prevent perfect restoration of the foot. (3) Retain the foot in a correct position by plaster of Paris dressing. (4) Leave the toes out in order to watch the circulation. Antisepsis, of course.

TREATMENT OF UNUNITED FRACTURE.—DR. F. LEMOYNE, of Pittsburg, presented some drawings of an ununited fracture of the femur, and history of a successful case in which he had applied his method of treatment, viz: double splice and wire clamps. The treatment has been successful in three cases, two of the humerus and this one of the femur. The bone was cut down upon and the fragments found to be overlapping nearly three inches. The ends were sawed off, the upper fragment in the form of a wedge; from the lower one a wedge-shaped piece of bone was removed, so that the upper fragment fitted into it. A hole was drilled in both bones about one and a half inches from the fractured ends. A stiff, flat steel bar, with a prong at either end, was placed lengthwise on the surface of the bone, so that the prongs were inserted into the holes; a stout piece of wire was then passed around the clamp and femur at either end, and twisted close up, holding the clamp in position. The wires and clamp remained there nine weeks, when the wound was reopened and the clamp removed. The bone was firmly united, but the limb is two and a half inches shorter.

DR. MANLEY, of New York, stated that he had had considerable experience in wiring bones, and thought the bones when lapping very much should be wired at the first; the wires he always left in, as they did no harm. In one case of compound comminuted fracture, he had followed this method and secured perfect union.

DR. LEMOYNE remarked, he thought that his method was original, and everything else had failed, the man having undergone a number of operations previously; and all of his cases so treated had met with success; he did not believe in wiring in primary fractures.

A NOVEL ANTIPYRETIC—Recently while in the second week of typhoid fever, a patient in the Indianapolis City Hospital jumped from a third-story window, falling a distance of forty feet. He suffered but little injury from the fall, but it seems to have knocked the fever "higher'n a kite." At any rate the temperature rapidly subsided, did not return, and the patient made a speedy recovery.

It is not likely that Superintendent Oliver will hereafter pitch all his typhoid patients headlong out of a third-story window, notwithstanding the good effect the treatment seems to have had on the aforesaid patient. And yet we do not see why this treatment should not be given a fair trial, as in our opinion the fatality would be no greater than that caused by the indiscriminate trial of all the various new drugs that are so highly praised as antipyretics.—*Indiana Medical Journal.* Amen!

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OBSTETRICS.

ON THE CONTRACTIONS OF THE UTERUS THROUGHOUT PREGNANCY, AND THEIR VALUE IN THE DIAGNOSIS OF PREGNANCY, BOTH NORMAL AND COMPLICATED. A paper sent by J. BRAXTON HICKS, M. D., F. R. S., of London, England.—Fifteen years ago the author had first directed attention to the fact that the uterus contracted throughout pregnancy at intervals of from five to twenty minutes; since then he had added much to his previous knowledge.

Before the fourth month bimanual palpation was necessary, later external examination was sufficient for its detection. The pregnant uterus was very soft, and offered no appreciable resistance to palpation except during contraction. In a young girl suspected of pregnancy abdominal palpation was often all-sufficient, though internal examination might be necessary. It was of great advantage to obtain decisive proof before making any allusion to pregnancy. A soft condition of the uterus, with a localized lump, often pointed toward the death of the fetus or to ectopic gestation. The uterus might contract about fibroids. A knowledge of the contractions often rendered easy a diagnosis otherwise difficult, as in ovarian tumor, ovarian tumor and pregnancy, ectopic gestation, and normal gestation, twin pregnancy, and hydramnios (palpation and the stethoscope as aids). With a dead fetus the walls might be rigidly contracted. We should always look for corroborative signs.

Several cases were then cited in which the diagnosis was rendered certain only by this sign. The conclusions were:

1. That the uterus contracted at intervals of from five to twenty minutes during the whole of pregnancy, remaining contracted for from three to five minutes.
2. The uterus is firm when contracted, and the fetus cannot be distinctly felt, though when the uterus is soft the fetus is easily mapped out.
3. By noticing the contractions we are often enabled to diagnose normal pregnancy from other conditions.
4. The contractions have the physiological use of emptying the uterine veins of the carbonized blood.
5. The carbonized blood probably excites the contractions.

Professor ALEXANDER SIMPSON, of Edinburgh, Scotland, thought the phenomenon of uterine contraction during pregnancy was now a widely recognized fact. We often met cases requiring all our diagnostic skill, and should employ all known means.

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The sign mentioned was especially valuable before the fetal heart-sounds could be distinguished, and in the third month when it could be employed in addition to Hegar's sign. One important result of these contractions was that when the uterus contracted forcibly, its contained blood was suddenly emptied into the surrounding parts, distending them, and thus favoring the dilatation of the parturient canal.

Dr. A. F. A. KING, of Washington, D. C., said there was sometimes difficulty in recognizing the contractions of the uterus, and they might be excited by polypi, by the retention of menstrual fluid, or by fibroids. They were principally of value after the third month. During the first and second months we had no positive means of diagnosis. In single women the diagnosis of pregnancy could not be certainly made by uterine contractions alone. An important point in searching for this sign was to irritate the uterus slightly to make it contract.

Professor CHARPENTIER, of Paris, France, appreciated thoroughly the value of Dr. Hicks' sign, and related a case of hydramnios where its presence made the diagnosis possible.

DYSTOCIA FROM RIGIDITY OF THE CERVIX AND ITS MANAGEMENT. DR. GEORGE WHEELER JONES, of Danville, Ill.—After a consideration of the various conditions which might cause rigidity of the cervix, he spoke of the most important—spasmodic contraction. Here opium was most valuable, together with chloroform and Barnes's dilators, if quick dilatation was necessary. Sitz baths, warm vaginal douches, delivery in a warm room, morphia hypodermically, quinine where there was malaria, salicine in rheumatic cases, and electricity were all useful. He would never use chloral, as it was dangerous to mother and child. He then detailed some original investigations into the medicinal action of Gossypii radix, delphinium, and ipecacuanha.

DR. A. F. A. KING, of Washington, D. C., called attention to the fact that the thinning of the uterine segment and the obliteration of the cervical canal, conditions which led to the rigidity of the cervix, were abnormalities. When the uterus and child maintained during pregnancy their normal lateral obliquity, the canal of the cervix from the external to the internal os will remain unobliterated until full term, which is the normal condition both for primiparæ and multiparæ. Under the same normal circumstances the great thinning of the lower uterine segment, the tearing of the decidual mucous membrane, the "formation of a new rvical canal," and the other tissue-changes observed by Bandl will be absent *during pregnancy.* They are abnormal. They may nevertheless occur *during labor* from *abnormal* mechanical obstruction to delivery. Dr. King also objected to the use of chloral.

DR. BROOKS H. WELLS, of New York, did not agree with Dr. Jones concerning the great danger to the unborn child from the use of chloral. In about one hundred cases out of between six and seven hundred which he had had under his charge, or had witnessed, it had been used both as an anesthetic, where the first stage had been unusually painful, and in spasmodic rigidity of the cervix, and in no case had he seen any harm accrue to mother or child, but only the most gratifying results. He always used the precautionary measure mentioned by Dr. Jaggard, viz: to keep himself informed of the condition of the uterus by a hand placed over the fundus, slight rotary friction overcoming any possible tendency to relaxation, and had never had any serious post-partum bleeding, either with or without the use of chloral. Its administration might, in full doses, blunt the pains somewhat. He was accustomed to administer the drug in ten to fifteen grain doses, by mouth or rectum, until this result was attained—usually from two to four doses. He considered morphia and the hot douche important agents in treating the class of cases mentioned.

THE PROGNOSIS OF THE CESAREAN OPERATION. **DR. WILLIAM T. LUSK**, of New York.—If it were proposed to beat out the brains of a living child, the suggestion would be received with horror, no matter how great the surgical emergency might be, and yet, with the child unborn, craniotomy was often done for insignificant reasons. A careful *resume* of the statistics showed very favorable results, even with the old method, when the surroundings were favorable, and the operation was performed with proper surgical skill and accessories. Death was most often the result of an avoidable cause. The reader compared the brilliant results obtained abroad with the mortality attending recent American operations, and thought that a more favorable prognosis could not be expected until we had learned to recognize the conditions requiring the operation before the time when it should be done.

Defective diagnosis was the great bar to progress in this country, and all practitioners should qualify themselves to recognize the various degrees of pelvic deformity. An operator should possess at least a theoretical knowledge of the technique of the procedure, and while it was not desirable that anyone should attempt to perform the section, men capable of doing the operation could usually be found, even out of the larger cities.

The paper closed with a plea for Cesarean section as opposed to craniotomy, even in pelves with a conjugate of three inches.

THE CESAREAN OPERATION. DR. M. SANGER, of Leipsic, Germany.—Sanger's operation was to be preferred to the Porro when the child was living and could not be delivered by any other operation, or when the child was dead and could not be delivered by craniotomy or embryotomy, or could be so delivered only with the greatest danger to the mother. Good results could be obtained by the Cesarean section only under certain conditions, and when the operation was performed according to certain approved technical principles. These conditions are: 1. The maintenance of an aseptic condition in the uterine cavity, and, 2, early performance of the operation.

The cause of the greater American mortality is delay, and only trying the section when other operations have been unsuccessful. He lays stress on the following:

1. Antiseptic precautions as in other laparotomies.

2. The abdominal incision should be made through the linea alba over the middle of the fundus, about sixteen centimetres long.

3. It is not advisable to evert the unopened uterus, as it requires a large incision, except where the fetus is dead or there are not sufficient assistants.

4. The elastic ligature is not to be used before the uterus is opened, as it endangers the life of the child, or may incarcerate parts of the child, so that it may have to be loosened at a time when the operator requires his hands for more important matters.

5. Open the uterus in situ, by a frontal median incision; cut through placenta, or push it to one side; extract child by the legs; if head is caught, extend incision upward, to prevent any downward laceration of the uterus. At same time, assistant is to press abdominal walls toward uterus to prevent prolapse of intestines or flow of fluid into the abdominal cavity.

6. The danger from hemorrhage is not so great as is commonly supposed. By pressure on the inferior segment, and by slight torsion or flexion of the uterus and broad ligaments, the bleeding can be much lessened. Do without elastic ligature if possible.

7. Care must be taken in regard to three points in suturing: 1. Ac-

curate union of the incised surface of the uterus by numerous sutures, whereby a broad and close union is obtained. 2. Avoidance of suture-canals in the uterine cavity. 3. Especially careful union of the serous surfaces. Silk is preferred to silver-wire, because silk can be absorbed. Excellent results can be obtained with catgut prepared in oil of juniper, chromic acid, or mercuric bichloride.

Sanger's indications for Porro operation are: When the flow of secretion from the uterus is impeded by stenosis of the crevix or vagina, or, in some cases, of tumors of the corpus uteri, myomata, etc. He prefers Cesarean section where the myomata are retro-cervical or retro-vaginal, because the removal of the whole mass is then impossible or dangerous, and the removal of the uterus does no good. In osteomalacia he prefers the Cesarean section with removal of the ovaries to the Porro operation. He takes exception to Martin's recommendation to do the Porro operation in cases in which the puerperium becomes dangerous to the patient, as in far-advanced affections of the heart or lungs. He thinks such a case has as good a chance of recovery after Cesarean section as after Porro's operation.

DISCUSSION OF CESAREAN SECTION. Professor ALEXANDER SIMPSON, of Edinburgh, Scotland, was in accord with the ideas expressed in Dr. Lusk's paper, though he did not think the time yet come when craniotomy could be entirely laid aside; its performance, however, should be restricted. In Edinburg pelvic deformity was rare and craniotomy was rarely required.

The cases requiring abdominal section could be divided into two groups; first, those where the prognosis was rendered grave by pre-existing inflammatory conditions or sepsis, and, second, those favorable cases where we could choose the moment and place of operation, when we should nearly always succeed. At present he would be bold who would perform Cesarean section by other than the Sanger method. Where the uterus was diseased and its removal would give the patient a chance, he would employ Porro's method.

Professor AUGUST MARTIN, of Berlin, Germany, considers the Sanger modification very important, and one which has rendered the operation safe. Since the adoption of this modification the section had been done in some cases where he thought version could have been safely performed. In moderate degrees of pelvic contraction we should ascertain whether delivery could not be effected in other ways, as by version, before performing the section. Had done the Cesarean in pregnancy complicated with cervical myomata. Sanger had operated in similar cases. Where carcinoma of the organs in the pelvis endangered life we should endeavor to deliver child and remove growth at the same time. When the uterus was infected by septic material it should be removed. In a rachitic, kyphotic woman, with heart and lung disease, the symptoms were so grave that he did not think the woman would stand normal parturition or the puerperal state; accordingly he had done abdominal section, saving both child and mother, who finally died from her lung trouble. Much depended upon our knowledge of the technique; if we succeeded in doing the operation perfectly, either the Sanger or Porro operation was justified. The statistics of the Porro operation were rendered less favorable by Italian operations done on unfavorable subjects who were septic, and in whom the operation was too long delayed. The Cesarean section always gives us hopes of perfect recovery, while the Porro operation prevents future maternity.

Abdominal section is indicated when it seems impossible to bring a living child through the pelvis (take care not to operate too soon); when neoplasmata narrow the canal or endanger the progress of parturition; and when diseases are present in which the life of the mother and child would be endangered by the process of parturition or puerperium.

The Cesarean section should be done when we have reason to believe that the patient can endure another pregnancy; the Porro operation, or total extirpation, when there is no hope of future maternity, or where the disease, from its nature or seat, is probably fatal.

Dr. JOSEPH TABER JOHNSON, of Washington, D. C., reiterated the opinions expressed by Dr. Lusk. He believed that by delay and the attempt to perform other operations many lives were lost. He advocated the Porro operation when the uterus was septic or bruised. The wonderful results of foreign operators were due to their exceptional opportunities and skill, the operations being done by a few men, while here the operators were scattered, and many operations had been done in the backwoods. He thought that soon American surgery would reap as brilliant a reward as that abroad.

Dr. BALLS-HEADLY, of Melbourne, Australia, advocated the Cesarean section when the child could not be born alive through the natural passages. There were also certain conditions, as carcinoma of the cervix, where other operative interference would allow the child to be born, but in these cases his experience taught him that the Cesarean section offered a much better prognosis. The operation was an easy one. In slight pelvic contraction the section gave good results. We should operate early, or, if the parts were bruised, substitute the Porro operation.

Dr. **DOLERIS**, of Paris, France, accorded with the views of Lusk and Martin. He believed in the use of the elastic ligature.

Dr. W. W. **JAGGARD**, of Chicago, Ill., said, with reference to the *relative indication* for Cesarean section, that in cases where the child could pass *per vias naturales*, when diminished in volume, with safety to the mother, as, for example, in pelvic contractions of from 6 to 8 ctm. in the true conjugate, four considerations should receive attention:

I. Craniotomy does not require a higher degree of operative skill than every qualified obstetrician ought to possess, when proper instruments are employed, *e. g.*, Braun's curved trepan and cranioclast.

II. The mortality of craniotomy, when performed in time, and before exhaustion and infection of the woman, with adequate skill and antiseptic precaution, is, as remarked by Barnes, practically nil.

III. The consent of the woman, obtained without direct or indirect coercion, an essential condition of the relative indication, is seldom gained, if the facts be presented to her.

IV. That there is much sentimentalism with reference to the value of the life of the child in utero, as compared with the value of the life of the mother. This interest in the child is purely impersonal and scientific. The delight in saving the child's life is frequently that arising from the success of a difficult scientific experiment.

Dr. **WILLIAM T. LUSK**, of New York, said that the points made by Dr. Jaggard were opposed to his recent investigation. With skill we could remove a living child where the contraction was only 7 to 10 ctm. Craniotomy was a dangerous operation, and, under three inches, required much skill and good instruments. He believed the Cesarean section not more dangerous than the extraction of the child after craniotomy.

In his recent case the operation was done in the open ward, with the same preparations as for ordinary laparotomy. The children, according to his researches, did not die, as general opinion would have it. The Cesarean section was easy to do. He thought there was danger, in the employment of the elastic ligature, from paralysis and inertia, caused by the compression. We did not want to encourage trying craniotomy and then Cesarean section, but should make the latter the operation of election. Most of our cases had been done under circumstances which had rendered death inevitable.

TREATMENT OF PUERPERAL ECLAMPSIA. Dr. IRA E. OATMAN, of San Francisco, Cal.—After giving a sketch of the disease and the usual methods of treatment, he recommended: When the convulsions occurred before labor, anesthesia and clearance of bowels and rectum, together with as rapid delivery as was compatible with the safety of the patient. When the convulsions occurred after delivery and were accompanied by high, nervous, and vascular tension, nothing was so safe, speedy, and reliable as veratrum viride. This he gave in the dose of mvj. by mouth, or mx. by rectum, repeated every fifteen minutes until the convulsions ceased. Should the veratrum cause excessive depression, an immediate and certain antidote was found in alcohol. It was better to give the veratrum in excessive doses than to risk the continuance of the convulsions, for the brandy or whisky to counteract its effect were always present, and the veratrum certainly exhibited a remedial action not otherwise attainable. The puerperal period was to be treated as usual, together with treatment of any pathological condition present. He found the veratrum equally efficient in the convulsions of children and in hystero-epilepsy.

Dr. G. LANE TANEYHILL, of Baltimore, Md., advocated strongly the use of veratria in eclampsia, and said that fifty per cent. of his cases had, in the last twenty years, been treated by it, he giving ten drops of the tincture hypodermically every hour of convulsive action, and always keeping another hypodermic syringe with brandy to sustain the heart should the pulse go below forty-two. He was led to this practice by observing its use by Latimer in a case which he could control but temporarily by chloroform. He had not lost one case of eclampsia since using veratria; it enabled him to hold the engine (the heart) in check as an engineer with the air-brake, and was not as dangerous a medicine as was generally supposed. It produced the same effect as bleeding, save that no blood was lost to weaken the patient afterward.

Dr. DUNCAN C. MCCALLUM, of Montreal, Canada, had fourteen cases; all recovered. He used chloral, chloroform, potassium bromide, bleeding, morphia hypodermically; cleaned out bowels by stimulating enemata. There was no routine treatment; each case was to be treated on its own merits.

Dr. LAWRENCE, of Bristol, England, believed in as early delivery as possible, and the use of chloral. In plethora, bleeding was sometimes useful. It was difficult to lay down definite treatment.

Dr. **JONES**, of Danville, Ill., said that veratrum was an active purgative, and a loaded colon was an active agent in causing epileptiform convulsions. He took charge of his patients beforehand, kept their bowels regular, used chloroform in labor when any nervous symptoms appeared, and saw no cases of eclampsia.

DEVENTER'S METHOD OF DELIVERY OF THE AFTER-COMING HEAD. Dr. **JOHN BARTLETT**, of Chicago, Ill.—Deventer spoke in the most confident manner of the success and safety of podalic version, and of the ease with which the head could be delivered, but did not describe his method, which, however, Dr. Bartlett had found mentioned in Smellie's work. Deventer's method was shown to consist of a reversal of the so-called Prague method, in that the body of the child was carried far backward toward the perineum, with the view of turning the occiput out from under the pubes, the anterior surface of the neck resting on the perineum. At the beginning the occiput of the child was turned forward, so as to come under the pubes as the child was drawn down. The arms were *not* to be drawn down, but left up alongside the head, being placed so as to come anterior to either parietal boss. The delivery by traction backward upon the body was to be aided by pressure made immediately above the pubes, the wedge formed by the head and arms being decomposed by the withdrawal of the larger transverse diameter of the head from between the arms, as descent of the head accompanied by extension occurs. The mechanism was only favorable when the occuput was anterior. Deventer never lost a child or tore a mother. The arms being left up, protected the neck of the child and allowed a passage for the cord alongside of them, so that haste was not as necessary as with ordinary methods, and, occupying a broad and yielding part of the pelvis, they did not obstruct delivery. The method was a plausible one, and certainly worthy of trial in suitable cases.

Professor **SIMPSON** spoke of Deventer as one of the most reliable of obstetric writers; yet, as the method would seem to endanger the perineum, he would like to see a practical demonstration of its value.

Dr. **A. F. KING**, of Washington, D. C., considered that, in regard to the safety of the method, we must remember that the puerperal canal was elongated by the perineum, which he thought liable to be torn.

Dr. **PARKES**, of Chicago, Ill., described two cases where he had had difficulty in getting down the arms, and where a decided pull backward had easily and unexpectedly delivered the head. He had not understood the matter until Dr. Bartlett's paper had made it clear.

DR. JONES, of Danville, Ill., cited three similar cases where he had, without knowing it, used this method, with the patient on the side; the delivery being unexpectedly easy and the perineum intact in each case.

FETAL MEASUREMENTS—Most obstetric authorities have taught that there is no difference between the male and female pelvis at birth; in other words, that there is an entire absence of sexual characteristics. So, too, it has been claimed that the head of the male fetus is larger than that of the female, the general size of the fetuses being the same.

The recent measurements of thirty-three infants made by Franscani, however, prove that these statements are erroneous. Thus, while he found the bisacromial diameter about the same in the two sexes, the bistrochanteric and the bisiliac are greater in the female. He also found that in the male and female fetus of equal weights, the head diameters corresponded, and hence the opinion sustained by Sir James Y. Simpson, among others, that labor in case the child is male, will be more difficult because its head is larger, falls to the ground, for the labor is no more hindered than if the child were female, and of equal size.

It is to be hoped that Frascani's investigations will be continued by others, and if confirmed they will not only show quite conclusively that there is no difference between the sexes so far as original brain endowment is concerned, but also that nature begins in intrauterine life the preparation of the female pelvis for childbearing.—*Med. News.*

ANTEFLEXION with mobility, in a virgin, is a physiological condition, and can only be called flexion when the uterus becomes immobile and bound down by adhesions.—*Prof. Parvin.*

PROF. PARVIN, for all plastic operations on the female genitals, uses silver wire in preference to either silk-worm or cat-gut.

DR. MUSSER states that, after all operations on pelvic viscera, it is always well to make a routine practice of giving opium by suppository.

UTERINE CANCER, in the vast majority of cases, is of the cervix; sarcoma is of the body. One-third of all cancers found in women are of the uterus.—*Col. and Clin. Record.*

MEDICINE.

THE STUDY OF THE NATURAL HISTORY OF DISEASE. DR. JOHN A. OUCHTERLONY, M. D., Louisville, Ky.—He was deeply impressed with the importance of the subject in its practical bearing upon the solidity and permanency of medicine as a science. In endeavoring to discuss this he desired not to be understood as belittling in any way that science. It is not only well to admire past achievements, but also thoroughly to review the past to ascertain its deficiencies and seek the means most likely to overcome them. The study of the natural history of disease is most conducive to this end.

This subject is difficult on account of the vast scope and the complexity of disease. In looking over the ground we see in every department of pathology unmistakable evidences of the all-pervading presence of laws.

The eagerness of the physician to relieve pain and restore health often causes him to manifest distrust in nature's agency in the cure of disease. Diseases themselves are perfectly natural though not normal conditions of the living body; and the same power which called them into being may also not unreasonably be supposed to be adequate to their removal.

The truth is, nature possesses far greater power in curing disease than is admitted. A knowledge of the natural history of disease is the necessary basis upon which to estimate all medication.

The multiplicity and divergence of scientific opinions result from the neglected study and consequent ignorance of the natural history of disease.

To arrive at a proper knowledge of the natural history of disease, the co-operation of large numbers of medical men throughout the world is necessary, dissecting and attending to the various morbid conditions which affect the human race. These observations must include patients affected with various diseases modified by age, sex, occupation, etc., the duration of the malady, the events marking its course, the mortality, and mode of death. We shall then be in a position to judge with positiveness the value of a drug in shortening disease, preventing complications, or averting a fatal result. There are many obstacles to the execution of such a plan. To some it will appear culpable to withhold the assistance of art, and consign a patient to the exclusive care of nature. Independent of the consideration of the benefits to be derived therefrom, all objections to such experimentations may be fairly met by the following arguments:

First—Since we do not hesitate to subject patients in our public hospitals to treatment with medicines the action of which is imperfectly or not at all known, and consider it legitimate, it can be no less so in similar cases to simply watch the operations of nature.

Second—It must not be overlooked that nature, having inflicted disease, is also in many instances adequate to its cure. This is true of both light and severe diseases—those in their nature grave, such as malignant fevers, tuberculosis and cancer, spontaneously recover.

It is beyond dispute that the worst forms, and apparently hopeless cases of fever, recover unaided by medicine. Tuberculosis has frequently been recovered from under simply good hygienic surroundings. Hence the steadily increasing favor with which the profession regards the climatic treatment of this formidable enemy of our race.

Third—The strong tendency to recovery in acute affections is often admitted, and is a good reason in many cases for reducing medicinal interference to a minimum, and in many cases amply justifies allowing the disease to pursue the undisturbed and natural course.

Fourth—The character of self-limitation which we now know to characterize many diseases should be a warning to those who entertain exaggerated ideas of the results produced by their treatment, and an encouragement to those desiring to study the natural history of disease.

Fifth—Were it not that the *vis medicatrix naturæ* is no imaginary power, but a living reality, it would be impossible to understand how it is that many quite feeble or absolutely inert medicants could have attained such a high reputation in the treatment of various and severe affections. To-day "sage" is known to have no medicinal power, yet its history is classical, and it has received the indorsement of the learned as an effective medicinal agent. How many drugs have, like the garden sage, been lauded for imaginary virtues, but after awhile have sunk, like it, into well-merited disuse. Yet while in vogue, and medical journals were filled with accounts of their vast powers, it was the *Great Silent Mother* who wrought the cure.

Sixth—The indisputable fact that recoveries take place from similar diseases under quite opposite plans of treatment allows no other inference than that the recoveries are due to nature alone.

Seventh—When one recalls how marvellously patients sometimes get well under the rude and pernicious medication inflicted by quacks, one is forced to conclude that nature is not only adequate to remove the original disease, but also to overcome the artificial disease not infrequently superadded by the *energetic ignorance* of the practitioner.

He was well aware that physicians could not if they would, and should not if they could, forego all medicinal treatment in the management of all the sick under their charge. But in private practice cases will occur when such a course would be both safe and proper.

The greatest field for observation is the hospitals. It is well to set aside a certain number of cases and compare the results of medicinal and non-medicinal treatment.

Medical students should be taught not to believe in the exclusive power of art in the treatment of diseases, but more prominently the utility of studying their natural history.

Dr. CRONYN, of Buffalo, N. Y., thought that, as it is the natural history of a disease that teaches us, attention to it is best. After all, it often depends upon nature, keeping the patient quiet, and assisting nutrition. The laity think disease due to a poison varying in degree and intensity according to the severity of the illness.

Dr. HEMINGWAY, of Michigan, said: Our work is not as physicists, but as doctors, teachers. I fully agree with all that has been said in the paper. We, as physicians, have made the mistake of following the popular demand "to do something." I think we may sometimes give a little colored water. We may thus not only do the patient but others good who might otherwise fall into the hands of quacks. In the methods of our studies of disease we should seek to learn the cause, general progress and termination. We ought to study to aid recovery. We can do our patients no good in any other way.

Dr. W. J. SCOTT, of Cleveland, O., believed we would have a broader foundation by studying the history of the treatment of disease—what has been done that we may know what ought to be done. He objected to the too free use of compendiums of medicine instead of thorough and detailed works.

DR. A. B. ARNOLD, of New York, said: If we are called to see a patient in an attack of apoplexy, the friends invariably want the patient to do something when we know that the patient ought to be kept quiet to allow the clot to form. There is a form of diabetes where an excess of sugar taken into the body will be eliminated by the kidneys in the urine. We know that, by taking only as much sugar as can be assimilated the patient will be cured. There is another form of diabetes where the sugar is from the animal tissues, and consequently this is not improved by such treatment. These he gave as examples showing the advantage of a correct knowledge of the natural history of disease in determining treatment.

Dr. PAVY, of London, England, remarked: "I felt that I could not leave without saying I am heartily in accord with the idea that there is a natural history of disease, just as we each have a natural history of ourselves. By studying the natural history of disease we enable our own natural history to have its free play." He believed we needed, as physicians, more knowledge of agencies to cut short the natural history of disease. We also needed medicines to influence the mind as well as the body.

FEVER, ITS CAUSES, MECHANISM, AND RATIONAL TREATMENT.—DR. AUSTIN FLINT, LL.D., of New York.—After discussing the subject of animal heat, the following conclusions were reached by the author:

1. Fevers, especially those belonging to the class of acute diseases, are self-limited in their duration, and are due each one to a special cause, a micro-organism, the operation of which ceases after the lapse of a certain time.

2. We are as yet unable to destroy directly the morbific organisms which give rise to continued fevers; and we must be content, for the present, to moderate their action and to sustain the powers of resistance of patients.

3. The production of animal heat involves oxidation of parts of the organism or of articles of food, represented in the formation and discharge of nitrogenized excrementitious matters, carbonic acid and water.

4. As regards its relations to general nutrition and the production of animal heat, water formed in the body by a process of oxidation is to be considered as an excrementitious principle.

5. Fever, as observed in the so-called essential fever, may be defined as a condition of excessive production of heat, involving defective nutrition or inanition, an excessive production and discharge of nitrogenized excrementitious matters and carbonic acid, with waste and degeneration of the tissues, and partial and complete suppression of the production and discharge of water.

6. Aside from the influence of complications and accidents, the

ataxic symptoms in fevers, the intensity and persistence of which endanger life, are secondary to the fever, and are usually proportionate to the elevation of temperature. These symptoms are ameliorated by measures of treatment directed to a reduction of the general temperature of the body.

7. The abstraction of heat by external cold and the reduction of temperature by antipyretics administered internally, without affecting the special cause of the fever, improve the symptoms which are secondary to the pyrexia.

8. In health, during a period of inanition, the consumption of the tissues in the production of animal heat is in a measure saved by an increased production and excretion of water.

9. In fever, the effects of inanition, manifested by destruction and degeneration of the tissues, are intensified by a deficient formation and excretion of water.

10. Alimentation in fever, the object of which is to retard and repair the destruction and degeneration of tissues and organs, is difficult mainly on account of derangement of the digestive organs; and this difficulty is to be met by the administration of articles of food easily digested, or of articles in which the processes of digestion have been begun or are partly accomplished.

11. In the introduction of hydrocarbons, which are important factors in the production of animal heat, alcohol presents a form of hydrocarbon which is promptly oxidized, and in which absorption can take place without preparation by digestion.

12. Precisely in so far as it is oxidized in the body, alcohol furnishes matter which is consumed in the excessive production of heat in fever, and saves destruction and degeneration of tissue.

13. The introduction of matters consumed in the production of heat in fever diminishes, rather than increases, the intensity of the pyrexia.

14. As the oxidation of alcohol necessarily involves the formation of water and limits the destruction of tissue, its action in fever tends to restore the normal processes of heat-production, in which the formation of water plays an important part.

15. The great objects in the treatment of fever itself are to limit and reduce the pyrexia by direct and indirect means; to limit and repair destruction and degeneration of tissues and organs by alimentation; to

provide matters for consumption in the abnormal production of heat, and thus to place the system in the most favorable condition for recuperation after the disease shall have run its course.

THE PREVENTIVE POWER OF VACCINATION. Dr. JOSEF KOROSI, Director of the Communal Statistics of Budapesth, Hungary.—After gathering all the different modes of argumentation used up to the present time to attack or to defend the protective power of vaccination, he arrived at the result that the statistical base of these proofs is much weaker than is generally supposed by men of science who could not enter into an examination of the value of the different statistical methods. Even when the direct proof could be furnished, and even when we would find in this way that the morbidity or mortality of the non-vaccinated is the greater one, the anti-vaccinators reply that the whole of the non-vaccinated represents a weaker totality, consisting of the poorer elements, the sick and weaker children; and that this totality is naturally more exposed to get any sickness, but not in consequence of the lack of vaccination, but of the lack of vital powers—an argument which threatens to subvert all vaccinational statistics.

Mr. Korosi shows us that this difficulty can be settled. If we knew what is, for instance, the general lethality (Mr. Korosi distinguishes between mortality and lethality. Mortality is the chance for each living person to die; lethality is the chance for those already sick to die. The two notions are widely different but, notwithstanding, often confounded. The mortality of smallpox, for instance, rose to one per cent., the lethality to sixty or seventy per cent.) of the non-vaccinated, we could learn whether their special smallpox lethality is greater; this difference ought to be attributed exclusively to the lack of vaccination. But to ascertain the general lethality of the vaccinated and non-vaccinated people, it would be necessary for the hospitals to state, not only for the smallpox patients, but also for each case of sickness—even the surgical cases not excluded—whether they were vaccinated or not. This innovation was introduced in 1886, at the proposition of Mr. Korosi, in nineteen hospitals of Budapesth and provincial cities in Hungary. Here the results of the first year's observation, embracing more than twenty thousand cases, showed the general lethality of vaccinated patients to be eight per cent., and that of the non-vaccinated thirteen per cent.

Thus the assertions of the anti-vaccinators, that among the non-vaccinated the lethality is probably a greater one, is found to be true. But among the smallpox patients the lethality of the vaccinated rose to 6.66 per cent.; the lethality of the non-vaccinated should thus represent about ten per cent., but in fact that lethality is not less than 49.68 per cent. No doubt it was wrong to regard the whole of this increase (nearly eight hundred per cent.) as the consequence of the non-vaccination. The result is a product of two factors; on one hand of the weaker constitution of the non vaccinated, and on the other hand of the lack of vaccination. Knowing now the value of one factor, we can calculate what has to be attributed to the other. So we can state that for the non-vaccinated smallpox patients the chance of dying is raised *exclusively by the lack of vaccination* to five hundred per cent.

The same observation made it possible to state also in what degree the morbidity of the non-vaccinated is raised. The result is that the lack of vaccination causes three and a half times more cases of smallpox.

To apply the new method on the mortality, it would be required that at each case of death—and not, as is usual, only at the deaths caused by smallpox—it should be stated whether the person was vaccinated or not. This new regulation has been introduced at Budapesth since 1886; the coroners have to inquire the fact regarding vaccination in each case of death. As also nine other Hungarian cities agree to introduce this new regulation, the observations of Mr. Korosi embrace a population of 717,195 persons. The results of the first year show that the chance to die by smallpox is raised by six hundred per cent. for each non-vaccinated person exclusively in consequence of the lack of vaccination. This new and fruitful method of investigation has finally been applied also to the very important problems of inoculation of syphilis, erysipelas, tuberculosis, etc. In the ordinary way of vaccinational statistics it is nearly impossible to answer this question. If a man who has been vaccinated in his childhood later gets tuberculosis, how could we know whether his sickness was caused by vaccination or any other cause? But the new method furnishes the answer. If tuberculosis, syphilis, etc., have been caused by inoculation we ought to find among the vaccinated people more cases than among the non-vaccinated. It is now found that—at least in this first year of observation—there was found to be no influence of vaccination upon syphilis or tuberculosis. But what he found was that for the children the number of the cutaneous diseases is raised by vaccination, but only by thirteen per cent. Making up now the balance of vaccination and counting its benefits on the credit, its damages on the debit side, it is found that among a population like that of the United

States the vaccination would save annually 120,000 lives, while the number of children dying from cutaneous diseases, etc., caused by vaccination, might make 300, so that the balance is an extremely favorable one. The vaccination is an operation, but who would prohibit a life-saving operation where the chances of danger are so extremely few as above mentioned?

Mr. Korosi finished his paper with the remark that after having now furnished direct answers on the protective power of vaccination, we might safely extinguish doubts about the blessings of Jenner's important discovery, which must be regarded as one of the most beneficial results of happy empiricism and science.

HOT WATER IN THE TREATMENT OF EYE-DISEASES. DR. LEARTUS CONNOR, of Detroit, Mich.—He stated that that remedy was sought after which would most certainly induce, first, good feeling of the tissue; second, removal of morbid products and morbific agents; and third, the promotion of speedy repair. Such an agent is hot water in a great variety of eye affections, such as mild catarrhal and phlyctenular conjunctivitis, corneitis, affections of the sclera and iris, and even, in some cases, retinal hyperemia. In iritis, where the pupil refuses to respond to mydriatics, hot water will exert a marked effect in assisting dilatation of the pupil. Similar beneficial results in reducing inflammatory action had been noticed by him in catarrhal and purulent ophthalmia, in relieving the pain in glaucoma and acute dacryocytitis.

There is no morbid state of the eye on which it may not exert beneficial influence. The results reported by divers observers vary with the different modes of using it. The water should be as hot as the end of the forefinger will bear without discomfort. The method preferred by the essayist was to take a common tumbler, fill it to the brim with hot water, and, inclining the head slightly forward, apply the rim of the tumbler to the side of the nose and to the brow and cheek about the eye, which brings the eye itself actually into the water. The amount of water loses its heat slowly, and does not require frequent changing, and the eye may be kept in hot water with very little trouble for hours at a time. Antiseptics may be added, and the remedy is easily attainable with means for application. It is safe without the watchful care of the physician, while moist heat by any solid substances, as poultices, should never be used except under the direct supervision of the attendant.

Poultices are unsafe and unreliable means of applying heat to the eye; also dirty, especially on denuded surfaces. Compresses are less objectionable, and may be used as a substitute for hot water.

Local effects: 1. Contraction of blood vessels in and about the eye. Controls hemorrhages better than cold water, and blanches the tissues in conjunctivitis, blepharitis, phlyctenulæ; and after the use of hot water the ophthalmoscope shows the retinal vessels to be reduced in size. In one case where drawings were made of the vessels before and after, the difference was very marked, and the relief of retinal congestion and improvement of vision very noticeable.

The temperature of the water must vary with the sensation of the patient. The tissues should not be exhausted.

2. Hot water will wash away or destroy all morbific secretions or excretions. At a temperature of 132° F. it destroys the bacillus of anthrax and many others, and many eyes can bear a somewhat higher temperature.

3. It promotes the healthful activity of reparative tissue or protoplasm.

4. It exerts direct power in relieving muscular fatigue and spasms.

THE TREATMENT OF RECENT CASES OF INSANITY IN ASYLUMS AND IN PRIVATE HOUSES. G. FIELDING BLANFORD, M. D., Oxon., F. R. C. P., late Lecturer on Mental Diseases at St. George's Hospital, London, England.—The inquiry was limited to the treatment of recent insanity only, without reference to the care and maintenance of the chronic insane. Recent insanity in very many cases is a curable disorder. What mode of treatment, then, will afford the best prospect of recovery? Will the latter take place only under asylum supervision, or is there a fair chance of curing the sufferer in a house taken for the purpose, or the house of a medical man? For the great majority of patients asylum treatment is the only available method, but there is a certain proportion of insane persons whom it is important to treat, if it be possible, outside an asylum, to save them from the stigma of having been the inmates of one, as this may seriously damage their future prospects and position. Among females, some may be of high rank, whose friends shrink from the publicity of certificates and asylum surroundings; some may be young girls at the outset of life; others young mothers whom and whose children it is desirable to save from the reminiscences of an asylum. Among men there are not a few to whom confinement in an asylum will certainly bring a loss of employment tantamount to ruin. And a young man's future career may be marred by the same fact. It is therefore of importance to consider what mental disorders are likely to be transitory and capable of being treated in an ordinary house, or slight and free from danger to the patient and those about him, so that he may be able to live in such a house, or move from place to place under the charge of suitable companions.

The most transitory of all mental disorders are attacks of maniacal excitement, varying from undue elation and hilarity to very acute mania. The most frequent cases are those caused by drink, varying from ordinary delirium tremens to other forms of insanity seen more especially in women. Very similar forms occur without any history of drink, in persons prone by inheritance to nerve disturbance. They arise after a sudden shock of bad, or even good news, or great fatigue, or other exhausting cause, and last a few hours, days or weeks, the subsidence being often as rapid as the onset. The prognosis as regards recovery is often easy, the doubt being as to duration, and this will be solved by proper treatment.

Patients who are not actively excited or unduly elated, but depressed and melancholic, must be considered from a different point of view. They are more manageable, at any rate, in the less acute forms, but the disorder is more tedious, and treatment will have to continue for months rather than weeks or days. But many recover without asylum treatment, many without the aid of a specialist. As the commencement of this depression is almost always slow and insidious, treatment outside an asylum is likely to be adopted at first, so that there is an opportunity of considering how far such treatment is answering or likely to answer. The first objection to be urged against the keeping of a melancholic patient in a private house is the danger of suicide. That an ordinary house with unguarded windows, staircases and fireplaces offers more facilities for suicide than an asylum is certain. But asylums do not afford absolute protection, as our commissioners' reports abundantly testify. Nothing will effectually prevent suicide but the unceasing vigilance of good attendants, and this, in many cases, can be applied as well out of as in an asylum. One symptom which often necessitates removal to an asylum is obstinate refusal of food. When this is determined, and forcible feeding requires the aid of several assistants, it can hardly be carried out in a private house. Another reason why an asylum may be preferred is, that in an ordinary house or family the intense egoism so characteristic of melancholia is fostered rather than removed by the concentration of the attention of all upon the patient and his delusions. In an asylum, especially a large one, he becomes a unit in the number of those treated, and this of itself is often highly beneficial. There is one more variety of insanity which can often be treated out of an asylum. This is, acute primary *dementia*, or *stupor*, as it is sometimes called. These patients, though very often lost and idiotic, are seldom dangerous. With plenty of food, air and exercise, they will get well in a private house, and as they are almost all young persons, it is an advantage that they should escape the asylum reputation.

For the treatment of all patients in private houses one thing is absolutely requisite, viz., funds. Unless proper medical supervision, proper attendants, and proper quarters can be provided and paid for, to an asylum the sufferer should go. Friends are often willing to make a sacrifice, and profess they will pay anything. But this may mean a scanty and poverty stricken supply of what is necessary, the funds become exhausted before recovery takes place, and then an asylum is necessary, and money is wasted which could hardly be spared. Where means are slender and the duration of the illness doubtful, it is better to send the patient to an asylum at once, and save the money for the convalescent stage. Treatment in a patient's own house is rarely successful, therefore the alternatives are an asylum, or a house adapted to the requirements of the case.

FORCED ARTIFICIAL RESPIRATION IN OPIUM-POISONING, ITS POSSIBILITIES, AND THE APPARATUS BEST ADAPTED TO PRODUCE IT. Dr. GEORGE E. FELL, F.R.M.S., of Buffalo, N. Y.—In one of the latest extensive works, we find that artificial respiration has a wider range of application than might at first be supposed. It has been used in drowning, strangling, occlusion of the air-passages, hemorrhage, and poisoning from anesthetics and the various alkaloids. Those methods depending upon the movement of the limbs and body for their success have been usually supplemented with pressure by the physician. In the physiological laboratories experiments are performed, in which the trachea is opened to supply the air for respiration by means of bellows. The insertion of laryngeal tubes aiding in artificial respiration is worthy of consideration.

I have applied the term *forced respiration* to those cases in which the trachea is opened, to distinguish it from the ordinary artificial respiration. After extended inquiries, I have never heard of a case in which forced respiration has been used upon the human subject in opium-poisoning. On July 23, 1887, I was called to see a severe case of opium-poisoning, which, after the ordinary course of treatment, I finally gave up to die. Dr. F. R. Campbell was summoned to the case, at which time we found the respirations only one per minute: the pulse was still to be detected at the wrist. Atropine was at this time administered hypodermically, which soon resulted in a dilatation of the pupils. Having frequently performed the operation of forced respiration on animals, I suggested the advisability of trying this upon our patient, to which Dr. Campbell acquiesced. The apparatus which I possessed for this purpose was immediately sent for. The operation of laryngotomy was made, the tube inserted, and forced respiration produced. The pulse soon became stronger and more regular, and in twenty to thirty minutes the respirations themselves began. In three hours the respirations had increased from one to twenty per minute.

Dr. **BRAINARD**, of Los Angeles, Cal., objects to this method, owing to the danger of the operation. He thought Sylvester's method sufficient, if sufficiently prolonged, and if we used the precaution to pull forward the tongue. The artificial method should be continued faithfully for at least six to nine hours.

Dr. **FELL** replied that in his case the artificial respiration was kept up until the patient seemed to be getting worse all the while.

Dr. **ENTREKIN**, of Ohio, has tried successfully forced respiration in opium-poisoning, by passing an ordinary piece of tubing in through the larynx, and attaching to the external opening an ordinary pair of bellows. The connection had, of course, to be broken with each expiration.

THE DELETERIOUS RESULTS OF NARROW PREPUCE AND PREPUTIAL ADHESIONS. DR. LEWIS A. SAYRE, of New York.—His first paper on this subject was published in the "Transactions of the American Medical Association." He was the first to draw the attention of the public to this important subject. It is now generally admitted that paralysis, and various other nervous symptoms, including a want of co-ordinating power, are in some cases induced by the pressure of the prepuce on the glans. The remedy is removal of the constriction and of the retained and concrete smegma, and such an arrangement of the parts that the prepuce shall glide *easily* to and fro over the glans, without restriction, permitting cleanliness, and thus removing one great source of danger.

For this proper arrangement of the prepuce it is necessary in some cases to perform circumcision, or an actual removal of a small portion of the prepuce, and sometimes to dissect it from *actual adhesion*, which is a very different thing from ordinary normal agglutination. But there is no occasion for removing any tissue, unless there is great redundancy *with constriction*. And in the great majority of cases the object sought can be easily accomplished by pushing a grooved director as far back as possible, and then dividing with the curved bistoury enough tissue to allow of tearing back the prepuce and uncovering the glans. The next step is to make a slight nick with the scissors, or bistoury, through the thickened fold of the edge of the frenum. Having done this, it is easy with the thumb and forefingers to tear down the frenum and other adhesions, expose the glans, and remove from the sulcus behind the corona the hardened smegma, sometimes containing chalky concretions. In this procedure there is little loss of blood, and no loss of tissue whatever. A stitch on either side of the incision, between the skin and the mucous membrane, may or may not be required. Thus the glans is left partially covered, and it may as well be *freely* and *easily* uncovered. Having been responsible for bringing the subject before the profession, the writer wished to raise his voice against the mutilation and disfigurement of the organ which is often seen, which by too free removal of the prepuce leaves the glans entirely unprotected, as well as against the indiscriminate performance of the operation in cases where it can be of no avail.

The object of the paper was to harmonize two views—that of those who would operate in cases of infantile paralysis, and that of those who deny the existence of a paralyzed or even muscular inco-ordination from reflex genital irritation—by showing that there are cases of anomalous and extraordinary nervous manifestations certainly dependent on some irritation of the genital organs, in which an operation is not only justifiable, but absolutely demanded, and that in many instances the relief from all the strange symptoms has not only been immediate, but permanent after the operation, without any other medical or surgical treatment. It is also equally certain that any attempt to relieve a nervous disturbance dependent on some central lesion of the brain or spinal cord would result in no benefit whatever. The views of the writer were sustained by a large number of cases occurring in the practice of physicians in different parts of the country.

Dr. DE F. WILLARD expressed his belief in the existence of reflex symptoms from genital irritation, and that many cases can be relieved by uncovering the glans. He advocated exposing the glans by manipulation with the thumbs and forefingers, without incision of the prepuce or frenum, continued and repeated until the prepuce is no longer tight.

Dr. I. N. **LOVE**, of St. Louis, Mo., had for many years practiced circumcision. He believed in the Mosaic law from the stand point of sanitation, morality, and the general well-being of the child. He had not succeeded in inducing mothers and nurses to secure absolute cleanliness when the sulcus is habitually covered by the prepuce.

Dr. S. C. **GORDON**, of Portland, Me., also advocated circumcision, and believed that it should be more radically performed than it usually is.

Dr. P. R. **FURBECK**, of Gloversville, N. Y., recognized the importance of uncovering the glans and securing easy motion of the prepuce, but believed in the value and importance of dilatation, because many parents refuse to accept the use of the knife. He recalled a case in which a child of six years was relieved from choreic symptoms by dilatation after circumcision had been strongly opposed.

SCARLATINAL NEPHRITIS FROM A CLINICAL AND PATHOLOGICAL STANDPOINT. DR. HENRY ASHBY, of Manchester, England.—The paper presented the results of his own observations in the wards and dead-house of Pendlebury Hospital for Sick Children, where fifteen hundred cases of the disease had been received in the past eight years. The disease had been observed in three forms: (1) An early or initial form, not especially important when compared with the others, and (2) a variety dependent on septic changes which leaves traces in the kidneys discoverable by the microscope. It occurs in the second and third weeks. In most cases this septic inflammation of the kidneys gives no symptoms distinguishable from those of general septicemia. It does not extend so widely in the tissues of the kidneys as to impair their functions seriously. The urine is not diminished, and general edema and uremic symptoms are absent. (3) Post-scarlatinal nephritis, or the nephritis of convalescence, far surpasses the other forms in interest and importance. It occurs in an apparently well or rapidly convalescing child, and is the last and often fatal assault of a disease which has been almost subdued. It occurs from the sixteenth to the twenty-fourth day. The kidneys, after this form of scarlatina, like the lungs in measles, are weakened by their efforts to eliminate poison, and are more readily affected by fibrinous or croupous inflammation. In hospital practice, at least, cases of mild scarlatina are less liable than severe cases to be followed by nephritis, which ranges in severity from cases which might easily be over looked to those in which the uremic symptoms are sudden and alarming. The earliest and most characteristic signs are diminished urine and puffiness of the face, which may appear several days before albumen is detected. The amount of albumen and its specific gravity vary greatly in different cases. The urine continues to diminish in quantity, and edema of the face sets in, with vomiting and other uremic symptoms, when suddenly a crisis like that of pneumonia takes place, large quantities of smoky urine of low specific gravity passes, and the patient is convalescing again.

ANATOMICAL CHARACTERS OF SCARLATINAL NEPHRITIS. DR. FRANK GRAUER, of New York.—The writer reviewed the post-mortem renal conditions of the initial catarrhal nephritis of scarlatina, and those which are found in the large flabby hemorrhagic kidney which belongs to septic inflammation. But he had more particularly studied post-scarlatinal or Klebs' acute glomerulo-nephritis, his observations being based on nine cases of this affection. The gross and microscopical appearances were described in detail. The kidneys were enlarged and hyperemic, with the cortex unchanged or sometimes thickened and the glomeruli prominent. With a low power the glomeruli are larger than normal, and with a higher power apparently bloodless.

Although he had noticed swelling and proliferation of the glomerular epithelium he did not agree with the opinion of some that the capillary circulation is obstructed through compression of the capillaries by this proliferation, because in all the specimens which he had examined the loops of the capillaries were larger as a rule than normal, showing that the pressure was from within, not from without.

He believed that the capillary obstruction is due to proliferation and thickening of the endothelial cells. The hypertrophy of the left ventricle, noticed in all his cases, was due (1) to the presence of some toxic element in the blood, and (2) to obstruction of the circulation in the Malpighian bodies, which compelled the left side of the heart to do more work.

He suggested that the term glomerulo-nephritis ought to be limited to those affections in which there is an obliteration of the loops of the capillaries in the Malpighian bodies, and not applied to those affections in which there is only proliferation and desquamation of the glomerular and capsular epithelium, which are common to all forms of chronic nephritis.

ALCOHOL AS AN ANESTHETIC. DR. LINK, of Indianapolis, Ind.—The speaker had used it in over a hundred cases and never had a fatal result, while the anesthesia was complete. The whisky to be given in two ounce doses, every two to five minutes, until a pint to one and a half pint had been taken and the patient became stupefied. Then about two drachms of chloroform were placed in the cone, and a few respirations would put him to sleep; the operation could then be carried out. The speaker's reasons for using this method was that in cases of shock there is depression; the alcohol increases the heart's action, while the chloroform, which is a depressant administered as stated, secures the equilibrium of the heart's action.

VACCINATION IN YELLOW FEVER.—DR. DOMINIGOS FREIRE, of Rio de Janeiro, read a paper on this subject, the tenor of which was that the disease can be prevented by inoculation with attenuated virus. Dr. Freire stated that in families of ten and fifteen members, living in *one hut*, if vaccination was practiced after the outbreak of the fever among the members not yet affected, this arrested the further progress of the scourge; whereas, where it was not practiced they were all stricken down with the fever and many, if not all, died. The paper was accompanied by microscopic specimens of the microbe of yellow fever.

Dr. Freire being asked what was his theory concerning the attenuation of the virus of yellow fever, answered, by oxidation, through the red corpuscles of the blood, and the proper or improper medium into which it is placed; but, he added, all this is *as yet* only conjecture.

THE DELETERIOUS EFFECTS OF TOBACCO ON THE THROAT AND NOSE. DR. M. F. COOMES, of Louisville, Ky.—He considerd smoking far more injurious to these parts than chewing. The smoke came into the mouth heated, and loaded with an irritating oil that would soon coat the mucous membrane were it not washed away by the saliva. Cigarette smoking is especially injurious, because the smoke is so universally inhaled, causing pharyngitis, laryngitis, and chronic irritation in the nose, not to mention the injury it may occasion to trachea and lungs. Where the smoke is habitually expelled through the nose, we find hypertrophies, congestion, dilated vessels, and a hemorrhagic condition. The smell is impaired or destroyed. The potash salts may also have some effect in adding to the injury. Ninety-five per cent. of smokers have something abnormal or unhealthy about the upper air passages. In bad cases, he found chronic hyperemia and inflammation of epiglottis, with congested cords, and a hacking cough to remove the tough mucus; the voice tires easily.

TO PROPERLY EXAMINE A WOMAN'S BREAST, she should be lying on her back. If examined in any other position, it can be so manipulated as to convert it into any tumor. When on her back, examine by pressing the tips of the fingers back through the breast against the chest walls, and not by pinching the structures up between the fingers.—*Prof. Gross.*

DIAGNOSIS OF RUBELLA (Rotheln: German Measles).—The more important diagnostic points are the short duration and slight import of the prodromes, the absence or slight degree of the catarrhal symptoms, the slight degree of fever and its variability, the presence of more or less sore throat and of enlarged lymphatic glands at the back of the neck and behind the ears, and the occurrence of cases in epidemics. As already emphasized, it is frequently impossible to diagnose sporadic cases if at all abnormal. For convenience of reference, a table of well-recognized diagnostic symptoms distinguishing rubella from measles and from scarlatina is appended. This cannot be claimed to be complete, inflexible, or applicable to anomalous cases. In tabulating the symptoms of measles and scarlatina, the articles in Ziemssen's and Gerhardt's "Cyclopedias" and in Pepper's "System of Medicine" have been principally consulted.

TABLE FOR DIFFERENTIAL DIAGNOSIS.

RUBEOLA.	RUBELLA.	SCARLATINA.
	Incubation.	
Fourteen days.	Very variable; one to three weeks.	One to seven days.
	Prodromal Symptoms.	
Usually last three days.	Absent, or seldom longer than twelve to twenty-four hours.	Last twenty-four hours or less.
Severe catarrhal symptoms of nose and eyes; considerable cough.	Catarrhal symptoms, if present, usually slight.	
Slight sore throat not uncommon.	Sore throat often attends.	Marked sore throat.
Vomiting occasionally.	Vomiting very rare.	Vomiting a frequent symptom.
Decided fever, with a characteristic temperature-curve.	Fever absent or slight.	High fever; rapid pulse; marked nervous symptoms.

Eruption.

First on the face.	First on the face.	First on the neck and chest.
Spreads gradually; maximum all over body by second or third day.	Spreads very rapidly; either fading from one part before in full bloom in another, or with universal maximum in twenty-four hours.	Spreads slowly; maximum reached by fourth day.
Lasts average of four days.	Lasts three to four days or less.	Usually lasts six to seven days or longer; sometimes much less.
Color deep red; often purplish.	Color usually pale rose-red.	Color intense red; dusky or livid in some cases.
Papular; arranged in irregular or crescentic groupings.	More or less elevated; spots smaller than in measles; discrete or confluent; seldom arranged in groupings.	Minute red points; confluent in large patches or universally.

Symptoms of Stage of Eruption.

Severe catarrhal symptoms persist and increase; severe bronchitis common.	Slight catarrhal symptoms persist or may appear.	Coryza in bad cases.
Throat sometimes sore.	Slight sore throat nearly always present.	Sore throat a very marked and constant feature.
Glands sometimes enlarged as in rubella.	Glands behind ear and back of neck almost always enlarged.	Glands below jaw often very much enlarged.
Tongue coated; in bad cases dry and brown.	Tongue clean or with thin yellow coat; *never "strawberry" or "peeled"*	Tongue "strawberry" and later denuded.
Temperature 102–104°; ascends slowly; maximum with that of eruption.	Temperature variable; rarely over 101°; no constant connection of maxima of temperature and eruption; often normal by second day.	Temperature usually 104–105° from outset for three to four days.
	Pulse in proportion to fever.	Pulse very rapid.
Diarrhea usual during eruption.	Almost never diarrhea.	
Albuminuria not very common.	Albuminuria exceedingly rare.	Albuminuria a common occurrence.

Desquamation.

Branny.	Absent, or slight and branny.	In flakes or rolls.

—*Dr. Griffith in Med. Record.*

FOR CONSTIPATION IN INFANTS, use equal parts strained oatmeal gruel and milk. If this does not act efficiently, try from ʒ ss–ʒj of sodii phosphas in twenty-four hours.—*Parvin.*

COLUMBUS MEDICAL JOURNAL.

EDITORIAL.

HEALTH vs. HEATING AND VENTILATION.

The heating and ventilation of our houses has so much to do with the health and comfort of their inmates, that it surprises us that it receives so little attention. With the proper appliances used, the vitiated or foul air is removed and a supply of fresh admitted, but when such precaution is ignored, the germs of disease are soon manifest; scarlet fever, diphtheria, and other kindred maladies soon follow, which never would have occurred had the best heating and ventilating apparatus been utilized. Parties building would do well to dispense, if necessary, with some extravagant ornamentation and supply their homes with a good hot water heating and ventilating apparatus, and we learn that the apparatus brought out by Mr. Saml. D. Tompkins, Eng., and manufactured by the A. A. Griffing Iron Co., 518 Communipaw Ave., Jersey City, N. J., meets all the conditions required; i. e., cheapness, durability and effectiveness, the latter, however, being the most prominent. We thank the A. A. Griffing Iron Co., for the handsome illustrated circulars they have mailed us, both of their patent Hot Water Heating and Ventilating Apparatus, as well as their numerous constructions for steam uses, and we think those who may be building or about to build would do well to consult with the above firm before purchasing their heating a ppliances.

Gonorrhæa, after the acute stage has passed; also in Gleet.

℞ Hydrastia (Berberina) Sulph.
(Wm. S. Merrell Chemical Co's) ʒ i
Mucil Acacia, ℥ iv
M. A half ounce as an injection.

Chronic Gastric Catarrh; Atonic Dyspepsia; Stomachic Tonic.

℞ Fluid Hydrastis, ʒ ij
Distilled Water, ℥ iv
Teaspoonful doses before meals daily for some time.

Diphtheria.

℞ Acidi Salicylici (Merrell), from wintergreen, ℥ ss
Glycerini, ℥ ij
Ag. Calcis ad, ℥ viij
M. S. Use spray; Boro Glycerine 50% solution, one part to 10, as a local application.

Irritation of the Bladder.

℞ Tinct. Gelsemium,
("Merrell" from green root) ʒ ss
Sodium Bromide, grs. iij
Fl. Ext. Dog grass ("Merrell"), ℥ iss
M. Sig: Teaspoonful in water every four hours.

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THE INTERNATIONAL CONGRESS has now passed into history. The attendance was large, consisting of about 2300 Americans and 150 foreigners. Not being present in person, we give the impression produced upon an esteemed correspondent, whose judgment, we think, is candid and entirely unbiased.

Of course no absolute estimate of the scientific work of the congress can be made until the volumes of Transactions appear, but we publish in this issue, as *Selections*, a synopsis of what appear to have been the most valuable papers. We have made this up from the very full and complete report contained in advance sheets kindly furnished by the *Medical Record*.

A BIRD'S-EYE VIEW OF THE NINTH INTERNATIONAL MEDICAL CONGRESS. By a COUNTRY DOCTOR.—The great International Medical Congress—which for the last three years has been "the bone of contention," over which many a battle of words and thrusts of the pen from contending factions have been centered—has, at last, passed into history. Each faction has triumphantly marched from the field of battle, bravely bearing the banner of "Didn't we kill the bear?" and "Didn't we tell you so?" and each at the same time shouting, at the top of their voices, "A decided success," and a "A miserable failure."

But how did it appear to the eye ot the quiet observer, who, through curiosity, personal interest, or for the general good of his profession, attended the congress as a humble member, ready to absorb the good and eliminate the bad?

In the first place, the gate of entrance was too wide, and the road that led to it too easy of access, to give it the tone and character it should have possessed: practically, all the qualification that was necessary for one to become a member of this august body, was to march up to the "captain's desk," register his name and pay his ten dollars, and receive his "tin medal" and portfolio of invitations. Not a word was asked whether he were in good standing at home or abroad, or whether he had any standing at all; in fact, men were admitted who, to my personal knowledge, would not be admitted to their own state society; while others, who were not allowed the floor to speak in our own American Medical Association (which, I blush to say, we all know is of too "easy virtue" as to the qualifications for membership), spoke at length here of their "great deeds of daring," with no one to "molest them or make them afraid."

It is true that we had men of distinguished professional ability, whose reputation is world-wide, and who not only honored the congress by becoming members of it, but added to its real worth by contributing original papers of signal value, the results of long-continued experimental work and close personal investigation; these results, which they gave to the congress and to the world at large, will only need to be known to be appreciated. Among these I cannot refrain from mentioning "An Experimental Contribution to Intestinal Surgery," by Prof. N. Senn, of Milwaukee, Wisconsin. This, in the writer's humble opinion, will be quoted from oftener, more generally, and longer, than any other paper presented at the Ninth International Medical Congress; it is a paper that the most distinguished leaders of surgery will find loaded with good things for study and reflection, and one which, from its eminently practical character, will command attention and receive the notice of all the best surgeons at home and abroad.

In the section of Public and International Hygiene, the paper by Dr. Dominigos Freire, of Rio de Janeiro, Brazil, on "Vaccination in Yellow Fever," showed an unusual amount of original investigation and experimental work, which, if it proves anything at all, must prove a great boon to those countries exposed to this dread disease, by protecting them from its ravages by vaccination. Judging from the immense amount of work expended upon this subject by Dr. Freire, and the earnest character of this investigator, and the plain facts he presented to the congress, I should say, at least, that his experiments in this meritorious direction should be given the attention of our best scientists, and repeated from different standpoints, until they are either fully confirmed or else weighed in the balance of practical experience and found wanting.

Would time and space permit, I could go on and speak of many other papers of distinguished merit that added luster to the proceedings of the congress, but were I to attempt that, I should also be compelled to speak of the many trashy productions manufactured out of a lot of hash, devoid of either original work or investigation, which would have been a disgrace to many a common country medical society, but which found their way into this great International Medical Congress through the wide meshes of the net that was supposed to strain out all the "trash" and only pass, by a tight squeeze, papers of meritorious character.

In the way of entertainment, the *conversazione*, of Monday evening, at the Pension Hall, was a massive affair of the kind, in which many who were not members of the congress evidently participated. The President's reception, on Tuesday evening, was notorious for crowds of Washingtonians, who packed the White House for hours to the exclusion of many of the foreign guests, as well as the physicians from different parts of the United States. This should have been prevented by proper arrangements, as this is not the first time the like has occurred.

The announcement in the general program of "receptions by the citizens of Washington," had no business on the program at all. If two or three citizens of Washington desired each to give private entertainments to a few hundred members of the congress, they had a perfect right to do so, but excepting it was so announced on the program, it had no business there, unless arrangements had been made to entertain all the members of the congress who might desire to go; in fact, it was the first time I ever saw the like, and it justly deserved the severe criticisms it very generally received. Neither in Cleveland, New Orleans, St. Louis, or Chicago, was it the case at the American Medical Association, and much less should it have been the case here; and it certainly showed a lack of taste, or of good management, or both, on the part of the committee on entertainment.

The general reception and the buffet banquet at the U. S. Pension Hall, on Tuesday evening, was much better managed, although the changing of the tickets for that the day before, after having issued invitations, was, to say the least, an awkward arrangement, especially to foreigners, who are not familiar with the sudden notions of some of our Americans; yet, notwithstanding, the banquet was quite a success, and did very much toward atoning for the mistake of the evening before.

The visit to Mt. Vernon and the excursion to Niagara Falls, for the benefit of our foreign guests, were both successful and satisfactory, as was also the reception at Grassland in honor of the ladies of our foreign brethren.

The mistake made by the secretary-general, which resulted in the trouble with the Italian delegates, was an uncalled for and ridiculous one. After having spoken to Dr. Durante, a regular delegate from Italy, to respond to the address of welcome by Secretary Bayard, Dr. Hamilton was taken with a sudden notion to revoke his arrangement with Dr. Durante, and confer the honor on Dr. Mariano Semmola, on the grounds of the latter being not only a doctor but a senator from the Italian government. This uncalled for insult was resented by Dr. Durante by publically withdrawing from the congress, but it was subsequently settled by making him the presiding officer of the congress, while Dr. Semmola delivered his address on "Bacteriology." The general feeling of the members of the congress was that the secretery-general should have more carefully considered his deliberations before acting, or adhered to his engagement with the foreign delegate with more firmness, especially when his reasons were so trivial as in this case.

Viewing the congress as a whole, it may well be considered a success, and possibly compares favorably with any yet held; but I am free to say that it could have been very greatly improved, scientifically and socially, and would suggest that future congresses pay more attention to *quality* than *quantity*, both in members and scientific work.

WE have space for no attempt at a report of the formal proceedings of the general sessions or sections of the Congress. These are essentially uninteresting at best, and have already appeared in the lay press.

DR. ALONZO CLARKE, one of New York's oldest and ablest physicians, died Sept. 13th, in his 81st year.

THE *Medical Register*, of Philadelphia, did itself proud in its daily edition of the proceedings of the Congress.

SANDER & SONS' EUCALYPTI EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Greifswald.

DR. WM. C. WILE, the talented editor of the *New England Medical Monthly*, and lately associate editor of the *Medical Register*, was married to Miss Hattie A, Loomis, of New Haven, Conn., Thursday evening, September 1st. We offer our heartiest congratulations.

OBSTINATE CONSTIPATION.—E. A. Scott, M. D., of Columbus, Kan., writes: I have a patient, a man who has been constipated four years; has called upon all the physicians in the place; none had benefited him, never having an action from the bowels oftener than six to eight days. He is now taking the Acid Mannate, small doses daily, keeping his bowels free. I have a lady patient who is suffering with a uterine trouble and has periodical nervous sick headache (I think solely dependent upon the uterine troubles); she is also constipated. I have her upon the Acid Mannate; she, as well as myself, is pleased with its effect; her headaches are not so frequent or severe.

A FIRST-CLASS COUNTRY LOCATION FOR SALE CHEAP.—A first-class country location, one of the very best in Northern Ohio, is offered for sale, including residence, barn, elegant office, &c., very cheap, as occupant desires to go to Europe. Address, Editor COLUMBUS MEDICAL JOURNAL.

REVIEWS AND BOOK NOTICES.

Hot Water and Beef Plans in Chronic Diseases. By Ephraim Cutler, M.D. Small 8vo.; pp. 34; cloth. New York: W. A. Kellogg, 9 West Twenty-ninth street. 1886.

This is an epitome of the Salisbury-Cutler plan of treating chronic diseases by means of hot water and beef pulp. Our readers are already somewhat familiar with this plan—a plan that has much to commend it, in suitable cases, both in theory and in practice.

What to do in Cases of Poisoning. By Wm. Murrell, M. D., F. R. C. P., Lecturer on Pharmacology and Therapeutics in the Westminster Hospital, etc. Edited by Frank Woodbury, M. D., Professor of Materia Medica, Therapeutics, etc., in the Medico-Chirurgical College of Philadelphia. Published by The Medical Register Co., Philadelphia. 12 mo.; pp. 158; cloth, $1.

This is a book which every doctor would find most convenient. The list of poisons is arranged alphabetically, and the whole is in the form of a syllabus, which makes its information most easily accessible.

Index Catalogue of the Library of the Surgeon-General's Office, United States Army—Authors and Subjects. Vol. VIII. (Legier-Medicine, naval). Washington: Government Printing Office. pp. 1,078.

This volume includes 13,405 author titles, representing 5,307 vols.

and 13,205 pamphlets. It also includes 12,642 subject-titles of separate books and pamphlets, and 24,174 titles of articles in periodicals. It will prove an everlasting monument to the energy of Dr. John S. Billings.

Syphilis. By Jonathan Hutchinson, F. R. S., LL. D., Consulting Surgeon to the London Hospital; Vice President of the Royal College of Surgeons. With 8 chromo-lithographs; 12 mo.; pp. 552. Cloth, $2.25. Philadelphia: Lea Brothers & Co.

This is one of the best of the "Clinical Manuals" that has been brought out. The author has long been recognized as an authority on the subject, and this work is a most excellent clinical exposition of the subject. Mr. Hutchinson is a firm believer in a living and specific microbe as the cause of the disease, which he regards as contagious so long as that microbe retains its vitality.

The Curability of Insanity and the Individualized Treatment of the Insane. By John S. Butler, M. D., Hartford, Conn., late Physician and Superintendent of the Connecticut Retreat for the Insane, etc. Flexible cloth, 16mo., pp. 59. New York and London: G. P. Putnam's Sons. 1887. Price 60 cents.

This is an interesting little brochure advocating the need of individualized treatment for the insane, and of that personal sympathy and moral suasion, of which comparatively few know anything whatever. He urges that the hopelessly insane should be separated from those considered curable.

The Principles of Antiseptic Methods Applied to Obstetric Practice. By Dr. Paul Bar, accoucheur to and formerly interne in the Maternity Hospital, Paris. Translated by Henry D. Fry, M. D. 8 vo., pp. 175. Philadelphia: P. Blakiston, Son & Co. 1887. Price, $1.75. Columbus: A. H. Smythe.

While our brethren on the continent have largely adopted, in some form or other, the methods of so-called antiseptic obstetrics, English and American physicians are far from being enthusiastic in this direction. The author is firm in his convictions of the great value of obstetric antisepsis, and if figures were not so notoriously unreliable, those that he gives would be conclusive. He discusses the theory of antisepsis, and describes the various methods of carrying it out; while his statistical array is fairly startling. It is a good book to read even if one does not accept its teaching. The translating has been well done.

Transactions of the Association of American Physicians. First session, Washington, D. C., June 17 and 18, 1886. Francis Delafield, M. D., President; James Tyson, M. D., Secretary; Jas. T. Whittaker, M. D., Recorder. Wm. J. Dornan, Printer, Philadelphia. 1886.

This volume of transactions is very creditable to the Association of American Physicians. The meeting was held at Washington, June 17 and 18, 1886. Among other papers read, we note especially the Tendon-jerk and Muscle-jerk in disease, and especially in Posterior Sclerosis, by S. Weir Mitchell and Morris J. Lewis, of Philadelphia; the Method of Managing Typhoid Fever, by F. Peyre Porcher, of Charleston, S. C.; Tetany, by Henry M. Lyman, of Chicago, and A Case of Hodgkin's Disease, by F. Forchheimer, of Cincinnati.

Students' Guide to Diseases of the Eye. By Edward Nettleship, F. R. C. S., Ophthalmic Surgeon to St Thomas's Hospital, etc. Third American from Fourth English Edition. With a chapter on *Examination for Color Perception,* by William Thompson, M. D., Professor of Ophthalmology, Jefferson Medical College of Philadelphia, etc. Philadelpaia: Lea Brothers & Co. 1887. Small 8 vo., pp. 475. Price, $2.

This new edition of Mr. Nettleship's book is all a student of medicine can desire as a convenient text-book, or, for that matter, the general practitioner for reference. This edition is a trifle larger than the previous issues, and embraces all matters of value that have been recently contributed to eye disorders and their cure. The chapter on Examination for Color Perception, by Dr. Thompson, is a valuable feature.

Sexual Impotence in the Male and Female. By William A. Hammond, M. D., Surgeon General U. S. Army (retired list), professor of diseases of the mind and nervous system at the New York Post Graduate Medical School. George S. Davis, Publisher, Detroit. 8 vo., pp. 305. Cloth $3.00.

Three years ago Dr. Hammond issued the first edition, which related only to impotence in the male. Now that the present edition treats of the disorder in the female also, it is without doubt the most valuable treatise to be had on the subject, based as it is on the unequaled clinical experience of its author. Departures from normal sexual health are by no means uncommon, and the effect on the moral, mental and physical well-being of the afflicted is most malign. To clearly point out the varieties and manifestations of impotence, and the proper treatment for the restoration of such patients to a normal condition of virile power, is a task the accomplishment of which should receive the approbation of all interested.

Athothis. A Satire on Modern Medicine. By Thomas C. Minor. Cincinnati: Robert Clarke & Co.; 1887.

The plan of the present volume is this: Dr. Paulus Androcydes, a modern physician and Egyptologist, accidentally finds that his pet cat is the present habitation, in the process of transmigration, of the soul of an Egyptian mummy several thousand years old, of which he is the lucky possessor. He has the boldness to carry out the formula which he finds with the mummy, and thus restores the soul to its original body. Athothis, thus rehabilitated, proves to have been a physician and medical writer of the first Egyptian dynasty, and he, after relieving both the doctor and himself of their bodily frames, accompanies him on a tour of investigation into medical matters, persons and things. Their comments and comparisons constitute the body of the work.

The writer's well-known abilities as a wit and medical literateur have here an abundant field for display, and the book will serve admirably to profitably amuse an idle hour.

A Practical Treatise on the Diseases of the Hair and Scalp. By George Thomas Jackson, M. D., Instructor in Dermatology in the New York Polyclinic; Assistant Visiting Physician to the New York Skin and Cancer Hospital; Member of the New York Dermatological Society, etc. New York: E. B. Treat, 771 Broadway. Octavo, 356 pages. Illustrated by special drawings and photographs from life. Price, $2.75.

This work discusses all matters pertaining to the care of the scalp and hair, and the treatment of its diseases. The parasitic and non-parasitic diseases in which the hair is implicated are all carefully explained. The hygiene of the hair is fully described. The volume is illustrated by numerous and specially selected wood cuts, which demonstrate to the eye what the text places before the understanding. The *specialist* will find here a carefully arranged and voluminous bibliography collected from over six hundred journal articles, besides special and general treatises, and the general practitioner, who finds it so difficult to learn what is the proper thing to do for a "hair case," will find scattered through it many prescriptions that cannot fail of being useful to him. The author has made the matters of diagnosis and treatment specially prominent, carefully pointing out the differences between the various diseases of the hair, the special and appropriate remedy needed for each, and the best means for their prevention.

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COMMUNICATIONS.

THE MANAGEMENT OF PERSISTENT UTERINE HEMORRHAGES.

BY A. B. CARPENTER, M. D., CLEVELAND, O.

Read before the Ohio State Medical Society, June, 1887.

It is not the purpose of this paper to deal with the pathology, or the medical treatment of persistent uterine hemorrhages, but to call attention briefly to the exploratory plan and method as desirable in a class of cases which seem to have defied the medical treatment usually given. Uterine polypi, fungoid endometritis, the blighted ovum, or a retained bit of living placenta, are among the special conditions to which it is our purpose to call attention. It is evident that the presence of any one of these conditions will defy almost completely uterine therapeutics, and lead the patient a life of misery, discomfort, and danger.

The uterine sound will be our guide in many cases as to the necessity of exploratory treatment, although it will sometimes fail; but as a general rule, persistent flooding, where the canal measures over three and one-quarter inches, will be found to defy therapeutical measures. If the canal is open, as in many cases of endometritis, an intra-uterine application of iodine, carbolic acid, and especially lactic acid, will remedy this difficulty; but should the hemorrhage still persist, the curette will be our resort.

I would here call attention to the properties of lactic acid. It has no action upon healthy mucous membrane, but fungoid or sloughing tissue it quickly attacks and rapidly destroys, leaving a healthy appearing surface, which tends to rapidly granulate and heal. It is not so irritating as some of the older remedies, and is a valuable application; it is to be applied twice a week, in the chemically pure form.

As to the contra-indications to an exploration of the uterine canal, nearly the same rules apply as to the use of the sound, but contra-indications being absent, and the ordinary methods and forms of treatment having been made use of, it is not only proper but it is demanded that we proceed to explore the cavity.

As to the best method of dilating the canal there seems to me but little choice. While there are some who still advocate the use of the tent, the growing verdict seems to be that tents have had their day; therefore they will not be considered as a desirable method. There are as many forms of uterine dilators as there are works on diseases of women, and all possess more or less merit. Attention, however, will be called specially to Hegar's hard rubber dilators. These are smooth and polished, slightly curved, and run in numbers from 1 to 36; they are easily introduced, and appear to cause comparatively few bad results. They are strongly disapproved of by some, but nearly all the dissenting voices are found at the same time advocating the instruments devised by themselves.

To use Hegar's dilators, the patient should be anesthetized and placed upon the back or side, and the vagina should be made aseptic by a solution of 1-500 bichloride; then hook the cervix well down and begin with the lowest number that can easily be introduced; leave this in place for a moment, then withdraw and follow with the next size, and so on until the canal is large enough to permit of the examination.

If a polypus or a sub-mucous fibroid is suspected, dilatation will have to be carried on up to the large numbers so as to permit the index finger to be introduced into the cavity. In all cases we are justified in making the exploration only after a careful examination which results in a strong probability that we have some intra-uterine complication to contend with. In this case we should not allow our patient to go on bleeding indefinitely without giving her the benefit of this exploratory form of treatment.

After dilatation has been carried on sufficiently to admit the introduction of the index finger into the canal, what may we find there to explain the cause of the bleeding? We may find simply subinvolution, with an aggravated form of fungoid endometritis. In this case recourse to the curette, followed by the application of tincture of iodine, will ordinarily effect a cure.

We may find a polypus growing from any locality within the canal; in this case the wire of the ecraseur will remove the difficulty.

We may find a blighted ovum, the so-called fleshy mole, or a portion of a retained placenta; in this case, as in the first, the curette will bring relief.

A sub-mucous fibroid may be found bulging into the canal; this is removed by introducing a blunt-pointed bistory and cutting the capsule and eneucleating the tumor; but should the fibroid prove to be of the interstitial variety, then we shall have a formidable complication to deal with in so far as permanently checking the flooding is concerned.

It is not our purpose to go into the treatment of hemorrhages resulting from interstitial fibromata, and will only say that if the flooding does not threaten the life of the patient, we should carry her on to the menopause as best we can; but should our patient be in danger of bleeding to death, removal of the ovaries, or supra-vaginal hysterectomy, will be our course. When we find the cause of the hemorrhage to be an interstitial fibroma, about the only encouragement we can give our patient is that with the menopause will come relief, and that her trouble torments but, as a rule, does not kill.

The report of a few cases will perhaps best serve to illustrate my point, viz.: The necessity of exploring the uterine cavity in cases where the flooding is persistent, or uncontrollable.

CASE I. Louisa B., single, 38 years; menses began at 13, regular up to three years ago; flow usually lasted five days without pain. For two years past the flow has been increasing and pain in back has been severe, the period now lasting twelve to fifteen days with great loss, the patient being unfitted for her work—that of teaching; she has taken the usual remedies, including ergot in large doses, with no effect. I first saw the case March 3d, and found upon introducing the sound that the canal was over three inches in length. As she had never been pregnant, I at once suspected intra-uterine difficulty, and the uterus was accordingly dilated. A small polypus, the size of a walnut, was discovered growing near the fundus; this was removed, and she has now passed several periods since the operation without trouble.

CASE 2. Mrs. O., age 24, married eight years, one child four years old, no abortions. Patient gave a history of profuse floodings for the past two years, great pain in back, and bearing-down pain, bowels confined; for the past year has been unwell nearly three weeks out of the month. The sound gave a measurement of three and one-half inches; having had no abortions, and only one child, I looked upon the case as one of probable polypus or fibroid, but upon examination only an aggravated case of fungoid endometritis was found. With the curette I removed a quantity of fungoid material, and the metrorrhagia has since entirely ceased.

CASE 3. Mrs. G., age 29, seven children, two abortions; patient stated that she had had a miscarriage fourteen days before, at three and one-half months; that everything came away, but that she had had profuse flooding for the past forty-eight hours. On examination the uterus was found four and one-half inches long and retroverted. Being misled by the statement of the nurse that everything came away all right at the time of the miscarriage, I prescribed fifteen drops of ergot every hour, and placed a tampon in the vagina. A few hours later a message was received that the patient was bleeding to death; I secured aid, and went in haste, prepared to go into the uterine cavity. This was readily accomplished, and a piece of placenta was removed by the curette from near the fundus. The curetting was followed by a 1-500 irrigation of bichloride, and the patient lost no more blood and in a fortnight was well.

This woman would no doubt have died without the aid of this exploratory treatment, and in cases 1 and 2 their sufferings would have continued under the use of therapeutic remedies.

In closing I beg to submit the following propositions:

First—That, after a reasonable trial, we are not justified in allowing a patient having profuse floodings to go on with the simple use of drugs, but should insist upon a careful examination with a view to ascertaining whether there is not some intra-uterine trouble.

Second—That if we find upon this examination a probability that such a state of affairs exist, then we should take steps to dilate the canal.

Third—That Hegar's dilators are quite easily introduced, and when properly used are comparatively free from danger.

Fourth—That their proper use consists in first irrigating the vagina with 1–5000 bichloride before the operation, and then irrigation of the uterine cavity with the same solution after the operation is finished.

Fifth—That by this form of treatment we may afford permanent relief to a class of cases afflicted with these profuse floodings which for years have rendered the patients miserable, and life a burden.

THE RADICAL CURE OF HERNIA.

BY H. J. HERRICK, CLEVELAND, O.,
Professor State Medicine and Hygiene, Western Reserve University, Medical Department.

Read before the Ohio State Medical Society, June, 1887.

Surgical treatment for the radical cure of hernia, when there is no strangulation or immediate demand for surgical interference, has not become an established custom among physicians. Temporizing means with the truss, in some one of the varied ingenious forms, is the usage, and this even when the opening is so large that the protruding part can not be retained by truss of any device during labor and changing positions.

It is the purpose of this paper to raise the question whether with the improved methods in surgery at the present day we should not advise, in certain cases, surgical treatment for radical cure. If so, in what cases and by what methods?

It is to be borne in mind that no method can be regarded as devoid of all danger, and that the patient will be willing to take certain chances in order to be free from the annoyance of truss and the possible danger from inflammation and strangulation at some unexpected time, and because unexpected accompanied with greater danger.

It is my conviction that more frequent resort to surgical means for radical cure is the duty of the surgeon to-day. It is my purpose, in attempting to sustain this conviction and also to point out the operation which I would advise, to report a case in detail.

A. B., aged 28, a German of regularity and good constitution, came to me July, 1885. He had scrotal hernia of both sides, the size of my fist, which he was unable to keep up with a truss; the openings were large, and any lifting or attempt at labor increased the size of the rupture very greatly. He was a single man, though he desired to marry, but in his present condition felt that he could not. He could not work with any comfort or safety, and under those conditions felt that life was without value to him. After a careful examination of the case and consultation, I proposed the operation for the radical cure. I further concluded to operate upon both sides at the same operation. I was assisted by Dr. Dudley Allen, who also gave valuable counsel, and Dr. B. L. Millikin.

The operation consisted in shaving off the hair and bathing the surface cleanly and applying towels wet in a solution of bichloride of mercury, 1 per thousand, around the parts to be incised. An incision was made from the scrotum along the course of the cord up to the external ring. Dissections were made down to the sac, and its contents forced back into the abdomen; the sac was then drawn out of its position in the scrotum and clamped between the handles of dressing forceps, when the sac was cut off, leaving space between the stump of the sac and the forceps to stitch the edges together with a continued suture of fine silk, rendered aseptic by carbolic acid solution (1 to 20). Having thus effectually closed the stump, it was pushed back into the abdomen. The edges of the ring were made bare and five sutures, half an inch apart, were used for bringing them with adjacent areolar tissue together. The sutures were of silk, larger in size than that used for the neck with the same aseptic precautions. In the same manner the deep fascia was brought together, and finally the integument and superficial fascia. The antiseptic care of cleanliness and mercuric bichloride (1 per 1000), was used, without the spray. Great care was taken to remove all lacerated tissue and coagula, and no drainage tube was used. The left side having thus been operated upon first, the right side was treated in the same manner. After the completion of the operation, the parts were thoroughly dusted with iodoform, antiseptic gauze was applied and absorbent cotton. The spica bandage was firmly applied, so as to offer support to the parts and keep the dressing firm.

The operation was made July 2, and the dressing left until the 14th. The first day after the operation, owing, it was thought, to accumulation of water in bladder and flatus in rectum, fever rose to 100°, but these conditions being relieved, the fever subsided and did not return during the course of recovery. Indeed, no unfavorable symptoms occurred, and when the dressing was removed, twelve days after operation, the wounds were effectually closed without suppuration. The superficial stitches were removed. No unfavorable results occurred from the deep ones.

He left the hospital after about three weeks, perfectly cured. The operation was performed in July, 1885. I have heard from him since, and learn that he has no trouble whatever and no show of a return.

In this operation I claim nothing in the procedure as new, unless it is the clamping of the neck and removing the sac, and finally the use of the continued suture for the closure of the stump. By this method the peritoneal cavity is not opened at all so as to allow entrance of any septic material; thus, perhaps, the greatest danger in the operation is averted.

Indeed, from the facility of the operation, the ability to fully prepare the patient for the operation, and the absence of any unfavorable results, I feel impelled to urge the advisability of the operation, when before I had been very timid about such a procedure. I am satisfied that many men are enduring almost constant discomfort and danger where this operation, with the minimum risk, would offer complete recovery. I venture that most physicians in active practice have one or more victims with such hernias as render life hazardous and cause great suffering and care.

The various means resorted to in former years, as the use of the subcutaneous ligature, or needle, or injections, have been presented with earnest advocates and skillful efforts, but all have been found wanting, according to the verdict of the profession. In later years, what has been termed the open or direct method has been used, with more flattering promise, for the relief of a large class of sufferers.

Dr. Henry O. Marcy, of Boston, in a valuable paper before the American Medical Association, sets forth this method and its success in a very forcible way. His method differs from the one used by me in that he does not clamp the neck of the sac, thus effectually guarding against entrance of septic material into the peritoneal cavity; also in the use of animal fibre in each set of deep sutures. I regard the silk as an animal production, and when rendered aseptic it is preferable to any animal fibre, being more reliable for strength and less liable to loosen or slip.

Other operators in late years have advised the "open method."

Dr. John Woods' method, if fully understood by me, consists in an incision in the scrotum, by which operation the fundus of the sac is carried up into the ring and attached to its margin. The results, as given by him, are quite favorable, though the liability to recurrence, the cause of which is obvious, is a plea against its advisability. It seems to me to incur as much, or more, danger than the operation of Wutzer with the view of accomplishing very nearly the same results. In place of the scrotal incision he would use a staff for invaginating the sac, and that is armed with a needle and clamp, for fixing the fundus in the ring until adhesions are formed.

The operation by injection, as advocated by Heaton and Warren, of Boston, and revived by W. B. DeGarmo, is also doomed to failure. Though quite favorable statistics are given as to the results, and large expectations are raised, yet I am of the opinion that its adoption by the profession is not to be anticipated. It must be obvious, on a momentary reflection, that so long as the sac remains, or portions of it, there is a funnel-like gathering of peritoneum which favors the descent of the organ which acts upon it constantly like a wedge to reopen what many have been completely or partially closed. The subcutaneous methods generally may be regarded as failures, while they involve as much or more risk to the life of the patient.

I have operated by Heaton's method—injecting the fluid extract of quercus alba—several times, at first getting such indurations and adhesions as to give promise of cure, but after a time the induration disappeared and the protrusion returned as before. It is claimed by DeGarmo that the operation is absolutely without danger, but judging from my own experience and what I have observed from similar treatment by others, I am satisfied that this is an overstatement.

I have certainly seen one case which one or two years after the treatment, suffered from disease of the omentum with peritonitis and death, results almost beyond question of the treatment of femoral hernia by injection. In cases operated on by me symptoms supervened which put from my mind the idea of perfect safety after such treatment.

I am driven to the conclusion, that the direct open method is the only one that promises almost obsolute guarantee of cure with the least possible danger. Besides, the whole procedure is rational and so perfectly under the supervision of the surgeon as to command considerate approval.

EARLY PATERNITY.—A correspondent of the *British Medical Journal* reports a well-authenticated case in which a boy thirteen years and four months old successfully impregnated a woman. The earliest case heretofore recorded of precocious puberty in the male is that of a boy aged fourteen.

FOR THREAD-WORMS, at night give gr. j of calomel and gr. ij–iv of santonin; the following morning inject a cleansing enema of water, and follow this by the infusion of quassia. To destroy the ova hidden in the folds of the anus and adjoining parts, apply locally a one per cent. solution of carbolic acid by sponge; never use the acid as an injection, however.

LEAF FROM A COUNTRY DOCTOR'S DIARY.

BY C. E. HAWORTH, M. D., HUNTINGTON, W. VA.

I can not resist giving you an item of experience that fell to me while practicing in R——— last winter. I was called hurriedly to relieve a man some five miles in the country, suffering from rupture. Thinking that I might need help, I insisted on having Dr. H——— go with me. It was bitter cold, and we traveled horseback through by-ways and hedges—cow-paths and icy creek-beds answering for the by-ways, while the bramble, thistle, grapevine, supported by decaying branches and buried fence-rails with ends projecting, all armed and polished with snow and ice, did honor to any known species of hedge. And overhead we were not alone. Innumerable beech trees spread out their arms with resolute and rigid defiance; and some of their bristling branches being none too high, would play rude and harsh pickpocket with our coats, and a healthy and vigorous foot ball with our hats and heads. In the face of such infantry, we finally scaled a two mile and a half hill—"rock-ribbed and ancient as the sun," I presume, though I assure you phrases and epithets more laconic than poetic were employed at that time. We finally arrived, our apparel furnishing everywhere an emphatic example of the solution of continuity.

We found a good-natured mulatto, of about 45 winters, stretched upon the floor, somewhat exhausted from his vain efforts to reduce a left inguinal hernia. This effort he had persisted in at intervals for about six hours. In a previous attack he had been more successful. Dr. H. being my senior by many years, I naturally deferred every form of management to him. He first undertook a reduction without chloroform. The doctor was in no mood to deal gently. Twenty minutes passed in this manner. I then administered chloroform. At the expiration of two or three minutes I began to despair when he had not succeeded, for I felt that of course he would not venture beyond the prescribed limit of the text books of later years. Ten minutes had passed, and his effort was one of uniformly increasing momentum in energy and force. *Gentle taxis!* Fifteen, twenty minutes came and went. The doctor's heroism gave no indication of abatement. I felt convinced that the poor victim was being sacrificed to violence, and could no longer withhold the suggestion that probably any further effort would be of no avail. "Probably not," he replied; but in my hope that he might desist after this I was disappointed. I plainly saw that his courage increased with his anxiety, and was without limit. I felt that the poor gut would be obliged to sound a retreat from main force. Thirty, forty, fifty minutes—an hour passed! The doctor still punched and belabored furiously. Cyrus' battering ram could not have done more enthusiastic service. Drops of sweat stood out upon his forehead—and mine, too, through mortal fear and anxiety. An hour and ten minutes! There was yet no hope of a truce or even suspension of arms. But when this Sullivanistic pugilism had continued for an hour and twenty minutes, my chloroform gave out, and this came to the patient's relief.

The doctor and I then went into executive session. I insisted upon an immediate operation. We were silent and moody for an hour or so. To operate was finally decided upon, but this necessitated a journey home for instruments, more chloroform, etc. The case was urgent. We could not think of omitting any trial, however severe to ourselves, to save life, and so we mounted our frost-covered steeds. The clatter of their feet rang out sharp and clear. It was growing colder. On our way we were again silent and moody. I was endeavoring to review my text books and Dr. Halderman's lectures—whenever I could sufficiently clear a merciless beech-tree. The doctor was gathering up the details of some previous operation.

When we returned it was dusk. A curious and sympathetic concourse of friends had gathered in to advise and assist. When we had warmed we looked about us for light. A lamp without chimney was the very best the neighborhood could furnish. To undertake an operation of the kind in the dark was not very encouraging. Dr. H. again thought. We again retired and consulted. Finally the doctor said: "By George, I would rather take the chances by leaving this fellow to the care of Providence to-night than operate under the circumstances. What do you think?" There was nothing else to think, for the patient presented but a ghost of appearance with all the light we could find. We again mounted our horses. The moon was full and clear. We said nothing. The keen, piercing whisks of north wind made us contract within our overcoats. Besides sleeping that night with frosted ears and toes, I dreamed of honest but fruitless endeavors, and among the multitude of glimpses I had in that dream I will not deny that an undertaker would occasionally intrude himself. But to-morrow came, and the event justified my infinite surprise and the doctor's conservatism in operating. *Providence* proved a good physician. During the night a spontaneous reduction took place, thus laughing at and mocking our most serious efforts. A courier announced the same day that "Old John" was up and about his business, comfortable and happy.

The doctor's defiance to your "two minutes under chloroform" came to no harm, as I had been taught to believe it would. And thus it is. Many of our gray-haired physicians, educated in the schools of forty years ago, display a contempt for maxims and precepts of recent medical literature that appears almost criminal to a youthful physician. As far as my experience goes, results had always justified my senior co-laborer.

FRACTURES OF THE LOWER EXTREMITY OF THE HUMERUS—SPECIFICALLY THOSE OF THE INNER, OR ULNAR, CONDYLE.

S. S. THORN, M. D., TOLEDO, O.

A paper read before the Ohio State Medical Society, June, 1887.

The object of this paper is to recall attention to the plan of treatment put forward by Dr. O. H. Allis, of Philadelphia, and to give emphasis to my own conviction that passive motion is not necessary to *their well conduct.*

As a rule, these fractures enter the joint from within, passing obliquely outward and downward through the ulna fossa and trochlea. They are moderately common, are followed by deformity and impaired function of the joint, limitation of flexion and extension.

Case One.—M., a child of about six years, was seen by me about half an hour after the accident, which consisted, as I learned, of a fall upon the inner side of the elbow.

Symptoms: Swelling, independent mobility of inner condyle, as shown by moving the part between the fingers, crepitation, and deformity, consisting of an upward displacement of the fractured condyle and widening of the joint, with a tendency on the part of the forearm to hang parallel with the long axis of the body, while its fellow took that position known as the "carrying position or function," to-wit: The forearm, when supine, hanging so as to form a slightly obtuse angle with the arm, hand projecting outwardly from the side.

The treatment was that enjoined by Dr. O. H. Allis. Both arms being exposed, the injured one was extended and held in position to secure the obtuse angle spoken of, and while thus held was covered by long narrow strips of adhesive plaster running parallel with the long axis of the arm, and extending from shoulder to wrist. These strips completely surrounded the arm, but were not in contact at their edges. Next, a splint of the same length as plasters, and full width of arm and forearm, so cut as to take the normal shape of the arm, was heavily and evenly padded with cotton batting and wrapped loosely with old goods, then placed along the face of the extended limb, and held by bandages covering the whole length of the splint. The fingers were flexed over the distal end of the board, and the arm supported by a sling passing down the whole length.

Case Two.—This was in a spare old woman, who was leading an easy, indolent life. The history given for case one represents this case, save in one particular, which was somewhat troublesome, and consisted of a puffing up from position of the distal end of the limb. The dressings, practically the same, were continued to the end without change except to readjust the bandages.

Case Three.—J. J., aged twenty-two, train hand, was caught while making a coupling, inner condyle fractured, and soft parts considerably contused and lacerated, joint not opened. Patient had been temporarily dressed by another before coming to me. The arm was held at an angle of about —°, and maintained, varying from the others to meet indications presented by the contusions and lacerations. The case was under my care about seven weeks, after which time the patient was ordered to use gentle friction, and not to be in a hurry to test the arm. Seventy days after receiving the injury he went to work on a baggage car, and has continued from that time to the present. When he began work the motions were exceedingly limited, certainly less than one-fourth normal. Patient was examined by me in April. Flexion, extension and rotation were at that date practically perfect. The muscles, however, of arm and forearm yet somewhat wasted.

Case Four—Was brought to me by Dr. S. about ten weeks after accident. The doctor reported fracture of inner condyle, which was treated in the semi-extended position. After fourteen days passive motion was begun. At my examination I found the parts about the elbow red, swollen and painful. These symptoms increased by motion. Advised absolute rest, to be continued until the patient should voluntarily begin use of arm. Recovery complete.

In none of these cases was passive motion made by me or permitted during their treatment. In every case the patient was allowed to consult his own time and pleasure in using the arm. Case No. 2, the old lady, is the only one not examined by me since active treatment was stopped. I have, however, been told by another physician and friends that she, like the others, has a good useful arm, and without the usual "gun-stock-arm" deformity, which consists of an angle, obtuse but reverse of that which normally exists, and which so well promotes the carrying and other functions of the limb.

You will observe that passive motion was not employed at any time in any of the three cases cared for. In the other it was interdicted as soon as seen by me. In this particular I have differed from the plan of Allis and others. He advises motion of the joint after fourteen days, while Hamilton begins after three to seven days, and continues to the end. His plan is to dress the limb with the forearm fixed at a right angle, but to remove the dressing after seven days, trusting to the effusions into and about the joint to hold the parts in position, with daily passive motion. Mr. Erichsen says all these injuries in the vicinity of joints must be conducted on very similar principles—combat local inflammation. The arm must be flexed and supported in an easy position on a proper splint. After the subsidence of the swelling the fractured bone, whatever be the precise nature of the injury, is best maintained in position by being put in an angular splint applied to the inner side of the limb, the forearm being kept in the midstate between pronation and supination, and well supported by a sling. It is in this particular fracture that passive motion should be had recourse to early, a tendency to rigidity of the joint being otherwise often left; motion in adults to begin in five weeks, in children in three. I quote from Hamilton. "The arm must be immediately flexed to nearly or quite a right angle, when, without much manipulation, the fragments will be made to resume their place, a gutta percha, or felt, right-angled splint, well and carefully cushioned, may now be applied and secured by rollers. Suitable pads must also aid the splint and roller in keeping the fragments in place." Hamilton further advises the daily dressing of the limb, and adds that in seven days, and perhaps earlier, passive motion must be commenced and perseveringly employed from day to day until the cure is accomplished.

Markoe prefers keeping the forearm in a position about 10° short of a right angle, believing that in this position the ulna itself will act as a splint, and by its support on the injured part of the trochlea hold in its place the broken condyle. The angular splint is fitted to the arm and forearm upon the back of the limb instead of upon its front or sides. On the inside it covers the condyle; upon either side it presses injuriously upon the epicondyles; if in front, the fragment cannot be so well adjusted or supported.

Bryant says these are grave accidents, and likely to be followed by some stiffness of the joint. Effusions are considerable and diagnosis difficult. The part had better be left until swelling subsides to perfect diagnosis. In all these cases involving the condyles of the humerus, whether into the joint or not, the fragments should be brought into position by extension upon the forearm when needed, with manipulation, and an anterior jointed rectangular splint be applied; the upper half of the splint being well passed up the arm and the lower down to the wrist. The joint angle may be left exposed. Unite in three or four weeks, depending upon age. All splints should be removed at the end of this period, and passive motion *allowed*.

Among the older writers there is great unanimity of sentiment as to mode of treatment and estimate of the seriousness of the injury. Cooper, Malgaigne, Gibson, Chelius, Holmes, Ferguson, Druitt, Keelty, Gross, Agnew, Packard, Erichsen, Bryant, recommend the flexed position and passive motion sooner or later. Liston and Toland advise the extended position, not mentioning passive motion. Clarke and Markoe, obtuse angle; nothing said about motion. Prof. Agnew is the only one of these times who advises the bandage before splint.

I have named and grouped so many to show that, before Dr. Allis, no one save Liston and Toland questioned the propriety or the necessity of the angular position, and further, that passive motion was the rule, Liston, Ferguson, Druitt, Toland and Clarke, only, not advising it.

A study of the joint structures and the relative position of the bones of the forearm and arm will, I trust, be of service to the better understanding of the principles involved in this new departure of Dr. Allis. The long axis of the joint normally tends toward the same axis (not at right angle) of the limb; thus, when contact of the articulating ends is maintained, the forearm projects from the body when it holds the supine position; the ulna articulating side being longer than the opposite side, compels the outward projection if contact of the articulating surface is secured.* I have prepared this joint so as to represent the parts normally, and also to show what takes place when there is a fracture, and it is attended by the usual displacement, or when it is promoted by treatment in the flexed position, particularly so if the arm and forearm are supported by rectangular splints applied upon either the anterior or posterior surface of the limb, or upon both surfaces at the same time. You will notice the relative position of the radius and ulua when the limb is flexed; the bones are not on a plane. The ulna normally being considerably lower, there exists a separation on their lower lines of about three-fourths of an inch. I now bring about the state of things that exists when a fracture obtains, and when dressed in the flexed position, the forearm being bound to a posterior splint. In this condition we have a lifting of the ulna, and with it the fragment. If an anterior splint is applied, the radius is crowded to the same plane as the ulna, again displacing the fractured portion. Theoretically and with our specimen, where there are no muscles, the malposition of the fragment is very great; in the natural state, the change of position is less, but very positive.

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*Bones of arm and forearm were here shown to the meeting.

In one event the humerus is relatively dragged down; in the other the fragment elevated, resulting in practically the same deformity and impairment of the motions of flexion and extension. In my demonstration I simply sustain the position of Dr. Allis—that the limb, when we have a fracture of the inner or ulnar condyle, should be treated in the extended position. Dr. Allis says that this practice has yielded in his hands excellent results: that is, when the dressings were removed the limbs were found free from deformity. and even, in the milder cases, from stiffness. Stimson says: "The theoretical ground upon which the method rests I believe to be entirely sound, and the practice to be free from objection whenever the extended position does not favor, as it sometimes does, dislocation of the forearm backward. In the extended position, with the head of the radius resting against the capitellum, the internal condyle can be brought fully down by fixing the arm and drawing the wrist gently outward, and so long as the forearm is kept in this position the condyle cannot rise."

Further he says: "I have not had sufficient experience with the method of treatment in the extended position to say more than that I am myself willing to make use of it, but that I prefer to use a moulded posterior gypsum splint, and a position 30° or 40° short of complete extension, in order to detect any tipping forward of the fragment *if* it should occur. * * * I do not think early passive motion is necessary to prevent stiffness of the joint; and when it is painful, the pain lasting for some time, I believe it to be actually harmful by increasing and prolonging the inflammation." The records of cases are filled with instances in which the joint has become almost entirely rigid under treatment by passive motion, and then after the tenderness had ceased, mobility has returned gradually under ordinary daily use of the limb.

Dr. Allis, in presenting his new plan of treatment, shows it to be founded upon principles which I believe a careful study of the joint, anatomically and pathologically, as well as in its function physiologically, fully sustain. Certainly my own experience upholds his theory and practice.

I criticise the directions of Hamilton and others, when they order passive motion, because I believe that injuries of bones extending into joints, involving joint structures, call in their treatment for exactly the same conditions that inflammations of a joint from other causes require. Here we may accomplish much by preventing inflammatory action, and surely this is better than promoting or helping to follow, and afterwards treating the acquired condition. To be short, I maintain that if a fracture enter a joint, absolute rest is the great preventive of inflammation, and so passive motion should be *interdicted*. If anchylosis impends, it is because of the existence of inflammation within the joint, resulting either directly from joint trauma or by reason of a cachexia, in which joint inflammations are prone, and only require some excitement to develop. That condition termed false anchylosis is usually peri-articular, and should not cause anxiety.

My contention is against passive motion as a rule; I might say as an exception also, because they are either damaging or not called for. If the joint structures are not encroached upon, certainly there can be no necessity for submitting the parts to the chances, or for torturing the patient. Rest for the injured part, to prevent inflammation. Rest for the imflamed part, to hasten recovery. Do not treat what does not exist or threaten. Further, if the encrusting cartilages are inflamed, eroded, or otherwise seriously injured, anchylosis is the end much to be hoped for, unless an operation be advisable. If the joint is not injured, anchylosis cannot obtain. To my mind, the greatest bugbear in the treatment of fractures is the fear of anchylosis, and the greatest torture to the patient usually comes from the unnecessary effort made to prevent it. I say to my patients, when there is freedom from pain begin to use the joint, not before. Then time and voluntary effort will complete our cure.

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SURGERY.

EXPLORATION OF THE BLADDER.—At a meeting of the American Surgical Association, held at Washington, May 11 and 12, Dr. F. S. Dennis, of New York, read a paper on Exploration of the Bladder, by the Supra pubic method:

The time is not far distant when practically the only two operations will be supra-pubic lithotomy and litholapaxy. Supra-pubic is simple in technique, safe in execution, free from injury to the reproductive organs, radical in results, curative in application, and brilliant in statistics. The many serious accidents attending the lateral operation are avoided.

Technique of Operation.—For a few days before operation a milk diet should be employed. The day previous to operation the bowels should be moved with castor oil. The morning of the operation an enema should be used so as to empty the rectum for the introduction of the rubber bag. The parts should be washed with antiseptic solution. After the patient has been etherized, the surgeon should introduce a rubber bag into the rectum so as to be above the internal sphincter. Into this twelve ounces of warm water is to be introduced. This quantity will have to be increased or diminished according to circumstances. The danger of rupture of the rectum in elderly people and young boys should be borne in mind. The urine should be withdrawn, and six ounces, more or less, of an antiseptic solution introduced into the bladder. The catheter may be left in the bladder and stopped with cork, and this will serve as a guide to cut upon. The distension of the rectum and bladder increases the distance from the pubes to the anterior cul-de-sac of the peritoneum to three inches. The incision should be made in the median line, and should extend for three or four inches above the pubes. When the transversalis fascia is reached the use of retractors, on the principle of the eye speculum, facilitates the operation. Having divided the fascia, the end of the catheter can be felt and cut upon as a guide. The bladder may then be seized with two tenacula and opened. Where free exploration is desired, sutures are introduced on each side of the incision. The stone is removed either with the fingers or forceps. The bladder may then be washed out. A catheter should be introduced through the urethra, but not left longer than twenty-four hours, on account of the danger of exciting traumatic urethritis. In the majority of cases the wound of the bladder should be left open. In cases of calculi, the condition of the tissues is such that primary union is unlikely. In certain other conditions, such as rupture, the wound may be closed, for here the condition of tissues is different. The abdominal opening is to be closed and a tube introduced.

This operation is indicated (1) for hard, large calculi, and in persons suffering with paraplegia and deformities rendering lithotomy difficult; (2) for removal of certain foreign bodies, such as hairpins, etc., and for the treatment of chronic cystitis; (3) in cases of tight stricture, fibroma of prostate, tumors of the bladder, and for rupture. In its extraordinary simplicity, its reduced mortality, its freedom from danger and safety for the general practitioner, it compares well with litholapaxy.

Dr. Dennis had collected 124 cases of supra-pubic operation for stone done since 1879. Previous to this date, the rate of mortality was 30 per cent. Since then the mortality has been reduced, there being eighteen deaths, a mortality of 14 per cent. Seven of these deaths may be justly excluded, giving a mortality of 9 per cent. According to Sir Henry Thompson's statistics, the death rate from the lateral operation is 12 per cent. According to the same authority the mortality of lithotrity is 5 per cent. In considering the mortality of this operation, two facts are to be considered. The mortality may be improved by more rigid antiseptic precautions. The second fact is, that the operation has been limited to the largest stones. When the smaller stones are included, the death rate will be reduced.—*Jour. Am. Med. Ass.*

KIDNEY BALLOTTEMENT.—Professor Guyon has indicated a sign that will allow a surgeon to detect an augmentation of the kidney, during its initial period. Hitherto this had not been possible, and, as it is of considerable importance in the early diagnosis of renal complaints, we will state this method. First, as to the method of exploration. M. Guyon remarks that it is usual, in attempting the palpation of the kidney, to get the patient to flex the legs and thighs on the pelvis; but this attitude only seems to make them contract the abdominal muscles, and renders the exploration of the kidney more difficult; so that he finds it preferable to allow the patients to remain quietly in the horizontal position, only taking away the pillows and telling them to breathe slowly and quietly. Then he slips his right hand flat over the posterier region of the kidney, and insinuates the index and medius fingers into the costo-iliac space, and proceeds to raise up this part of the lumbar region by making sharp and repeated pressure. Up to now these shocks have been used to arouse the sensibility of the kidney, which is nearly always manifest in nephritis. However, it is well to commence by searching for pain, as it will be the guide for further exploration. If the pain is severe, the shocks needed to show the *ballottement renal* must be given with great care, so as not to arouse the reflex contraction of muscles, which will interfere with Guyon's sign. The left hand of the operator is now placed flat on the anterior abdominal wall with slight compression, varying according to the case; while the right hand continues the slight shocks until the *ballottement* is felt against the left hand, with something of the sensation as the abdominal *ballottement* from the fetus is felt in the early months of pregnancy. The pressure of the left hand must not be extreme, because then the kidney will not have room enough, as it were, to move upward and give the sign sought for. When the left kidney is to be examined, owing to its situation, the abdominal hand must be placed higher than on the right side. It must be insinuated under the false ribs a little, if possible. This kidney-shock, or *ballottement*, when felt, indicates clearly *an augmentation in the volume of the kidney, and it can not be obtained when the organ preserves its normal size.*

What is the diagnostic value of this new sign? It is of importance to reveal any slight increase in the size of the kidney *as soon as possible* in all malignant affections of the gland, because its extirpation will be just that much less dangerous and so much more easy as it is least developed. Thus all the kidney-tumors, hydronephroses, renal tuberculosis and all forms of surgical nephritis will now be better diagnosticated by attempting to get Professor Guyon's sign, and so judging of the slightest augmentation of volume of the kidney, and, as it increases, of the advisability of operation.—*Medical Times.*

THE SURGEON AND THE MERE OPERATOR, WHAT IS THE DIFFERENCE BETWEEN THEM?—A very cursory study of the literature of surgery will show that a surgeon is far more than a mere operator. On one occasion the late Professor S. D. Gross said to the writer: "I am a far better physician than operator." Manual dexterity, perfect familiarity with all the details of an operation, an unwavering coolness, all make a striking figure before the profession and laity. In a certain sense they remind one of the old gladiatorial contest of the arena. But one may have all of these and still lack the essentials of a good surgeon. The work of mere operators is more than likely to be disreputable to all concerned, while that of the surgeon is fraught with the best possible good.

The *Medical Herald* gives the following diagnostic points between the surgeon and mere operator, as made by the late Prof. Godman, of Louisville. He says:

"The surgeon inquires into the causes, and removes the consequences of constitutional or local disease; the operator inquires into the willingness of his patient to submit, and resorts to the knife. The surgeon relies on the restoration of the healthy actions by regimen and medicine; the operator relies on himself and casts off the diseased part. The surgeon, reflecting on the comfort and feelings of his patient, uniformly endeavors to save him from pain and deformity; the operator considers his own immediate advantage and the notoriety he may acquire, regardless of other considerations. The surgeon reluctantly decides on the employment of instruments; the operator delays no longer than to give his knife a keen edge. The surgeon is governed by the principles of science; the operator by the principles of interest. One is distinguished by the number he has saved from mutilation, and restored to usefulness; the other by the number of cripples he has successfully made. The surgeon is an honor to his profession, and a benefactor to mankind; the mere operator renders the profession odious, and is one of the greatest curses to which mankind, among their manifold miseries, are exposed."

The reader of this analysis will at once be able to place many persons who pursue the calling of doctor. We could wish that all were surgeons in the sense defined, and that none were mere operators. Each can at least make his own course right, and seek to help his neighbors. A brazen-faced and lying-lipped charlatan none can reach but the common law and death.—*American Lancet.*

A NEW OPERATION FOR NASAL DEFORMITIES.—Dr. Roe, of Rochester, thus describes an operation which he has employed successfully for nasal deformities.

The operation is performed as follows: We first deaden the sensibility of the interior of the end of the nose by cocaine (general anesthesia being unnecessary), and then brightly illuminate this part.

If the tissue is to be removed from that portion where the mucous membrane is not too firmly adherent, the membrane should be dissected back, to be replaced after the operation.

The end of the nose is turned upward and backward, and held with a retractor by an assistant; then sufficient of the superfluous tissue is removed or dissected out to allow the nose to conform to the shape that we desire. Great care must, however, be exercised not to remove too much tissue, and also not to cut through into the skin, lest we may have afterward a scar or a dent in the external surface of the nose.

In some cases no after-treatment is required, but in others it is advisable to mould a saddle or splint, as it were, to the top of the nose, so as to make it, while healing, assume the shape we wish to obtain.

In some instances, the large and unsightly end of the nose is not due to an excessive tissue, but to a malformation of the cartilages of the alæ, bulging outward with a corresponding concavity on the inside.

These noses can be very readily moulded into a handsome shape by cutting, with a small tenotomy knife, through these cartilages, in different places, sufficiently to destroy their elasticity. Then, by inserting a silver or hard-rubber tube, of the proper size and shape, into the nostril, and conforming the saddle to the outside of the nose, we have it encased in an outside and inside splint that compels it to conform to the exact shape we desire.

While performing this operation and molding the nose into shape, we must not neglect to preserve the nasal passages free and unobstructed. —*Medical Record.*

FORCIBLE MOVEMENT IN THE TREATMENT OF STIFF JOINTS.—In America but little attention has been given to this, in reality, important subject. When the rationale of the treatment is understood, the application is easy, and to one unacquainted with the result seems miraculous. This is taken advantage of by the so-called bone setters, who employ all means in their power to increase the mysticism. In reality there is no mystery at all, but there is much to be learned.

The following conclusions may be of interest.

1. Forcible movement, carefully applied, is of great value in properly selected cases of stiff joints, especially those due to fibrous ankylosis and so-called hysterical joints.

(2). Forcible movement is not available when there is osseous ankylosis or a great degree of fibrous ankylosis.

(3). If perfect mobility is to be restored the cartilage and articular surfaces must be intact, hence:—

(a) Joints stiffened by traumatic injuries, as sprains, fractures, or blows, are most amenable to treatment.

(b) Joints stiffened by suppurative inflammation are least amenable to treatment.

(4). In the diagnosis the history and cause of the injury are important factors.

(5). In the prognosis the present condition of the joint and the general condition of the constitution are important, the strumous diathesis being especially unfavorable.

(6). Forcible movement may be suddenly or gradually applied.

(7). Forcible movement should be gradually applied in cases of osseous or firm fibrous ankylosis by means of a fixed apparatus, attached to the limb and actuated by weights and pulleys, by rack and pinion, or by levers controlled by springs and rubber bands.

(8). Forcible movement should be suddenly applied to cases in which fibrous ankylosis is present in the lesser degree or where there is pseudo-ankylosis. No mechanical aids are necessary, and if used, are liable to cause injury, the only force necessary being that naturally obtained by the leverage of the limb.

(9). A force sufficient to injure the normal tissue is unnecessary and detrimental, while in no way beneficial.

(10). Too much attention cannot be given to the choice of cases.

All the elements of the problem must be carefully considered, and when a line of action is decided upon, the treatment must be carried out with confidence and decision; if this all important matter is attended to and a wise choice of cases made, the result will as a rule be successful, but if cases are taken and treated haphazard, regardless of all conditions, the results will only be those of luck and chance and failure will inevitably occur.—*Technics.*

TREATMENT OF PILES BY DILATATION.—In the *Gaz. des Hopitaux*, M. Verneuil publishes a note on the treatment of piles by dilatation. According to the author, ninety-eight cases out of a hundred may be radically cured by this simple process. The duration of the treatment scarcely ever exceeds eight days, during four of which the patient remains in bed, and during the remaining four days in his room. Piles of six, eight, ten, twelve and fourteen years' existence have been completely cured in this manner. Even in cases in which the disease is complicated with true rectal prolapsus, dilatation should be had recourse to. During fifteen years that the author has practiced this method he has not met with one unsuccessful result. He prefers the speculum to the digital method of dilatation.

SUPPURATION OF THE MIDDLE EAR. W. W. CHEATHAM, M. D., Louisville, Ky., in *Am. Prac. and News.*—The method of treatment that has given me the best results in otitis media suppurativa is the following: If I find granulations or polypi, I get rid of them by Merck's crystalline chromic acid melted on a probe and applied thoroughly. Two or three such applications will remove the largest aural polypi. During this treatment I keep the ear clean with peroxide of hydrogen, twelve per cent., and a saline wash by means of the fountain syringe, the parts being well dried with alcohol as strong as can be borne. All excess of chromic acid I remove with a saturated solution of soda bicarbonate. Having got rid of all granulations, the following instructions are given for home treatment—of course all constitutional dyscrasiæ are corrected, if possible. Any throat complication is attended to.

For home use I prefer the fountain syringe. The tip I use is a small one, like the glass of a straight eye-dropper. The syringe is filled with a warm solution of bicarbonate of soda and water. Specific instructions are given as to how to syringe the ear: the auricle is to be pulled well up and back, the syringe is used for a few moments, and the ear wiped out with surgical cotton. The head is now held to one side, and ten drops of a twelve-per-cent. solution of peroxide of hydrogen dropped in, the auricle being worked up and back to allow the medicine to go in deeply; in a few moments the ear is again syringed, and again wiped dry. Boracic acid or iodol, two drams, or one dram of each in one ounce of alcohol, thirty per cent., forty per cent., fifty per cent., sixty per cent., or as strong as can be borne, is ordered, with directions as follows: The cleansing method just given is to be carried out one, two, or three times a day, as indicated; immediately after the cleansing the head is held to one side, the above mixture well shaken, and the auditory canal filled as with the peroxide of hydrogen; the head is held to one side until the alcohol has about evaporated, then the canal can be packed with the boracic acid or iodol, or whatever is preferred.

Two or three times a week the patient reports to my office, when I add to the above treatment applications to the throat and nose if needed, and inflation with the catheter, and Politzer's or Gruber's method. I do this before the ear is syringed the second time, so as to remove all secretions.

In review, then, what advantages can be claimed for this method of treatment? The syringe is the best means of cleansing the ear; this, with the peroxide of hydrogen, and the alcohol to remove any remaining water, answers all indications thoroughly. The alcohol answers three important purposes: it is antiseptic; it removes all excess of water; it carries the medication, whatever it be, to the smallest and most remote recesses.

The chromic acid reduces all granulations very rapidly, and without pain. Of course this treatment will not relieve in all cases. In some, which are apparently very simple, I find the old treatment with solutions of sulpho-carbolate of zinc and argentum nitrate gives better results. But in a great majority of cases the line of treatment marked out above has given in my hands most excellent results, and such as are yielded by no other.

THE USE OF HOT WATER IN SURGERY. THEODORE R. VARICK, M. D., Medical Director and Surgeon to St. Francis's Hospital, and Surgeon to the Jersey City Hospital, Jersey City, N. J., in *N. Y. Med. Jour.*—In a paper read by me in May, 1884, on "Railroad Injuries of the Extremities of the Human Body," etc., I considered the hemostatic effect of hot water when applied to the abraded surface of operation wounds.

In a paper presented by me, on the "Protective Treatment of Open Wounds," in February, 1885, the principles involved in the method of treatment of wounds by *hot water* were more fully discussed, and the results of experiments demonstrating the protective power of a film of coagulated albumin were shown, absolutely preventing the ingress of atmospheric germs; and being composed of autogenous material, there was no possibility of any toxic effect on the part of the agent employed, as against the many recorded instances of poisoning by the use of carbolic acid and corrosive sublimate.

It is now my intention, after over two years' further experience, to consider the results obtained, and to answer sundry criticisms, undoubtedly due to a total misunderstanding of the principles involved in the method and mode of application of the remedy.

Since the commencement of the practice under consideration, in August, 1879, in many operations, both capital and minor, in hospital as well as in private practice, and frequently with the most unhygienic surroundings, there has been observed, except in one case, an absolute exemption from sepsis in any form.

The method of treatment of operation wounds by hot water is based upon the following propositions:

1. After the larger vessels have been tied in an operation wound, there occurs an outward flow from the divided arterioles, venules, and lymph-spaces of a sero-sanguineous fluid, highly albuminous in its character, in varying quantity, and continuing for a longer or shorter period.

2. As long as this outward flow continues there is perfect immunity from infection by atmospheric germs.

3. The application of hot water checks this outward flow, coagulates the albuminous elements in the fluid, and forms an impenetrable shield over the surface of the wound.

4. Hot water applied to the abraded surface acts as a powerful cardiac stimulant, and controls shock.

It is necessary that the water should have a temperature of not less than 183° F. in order that firm coagulation may result. I am in the habit of using water slightly below the boiling point, or at the only diminution of temperature it would suffer during the time occupied in transit from the fire to the operating room.

It seems to me evident that, owing to the greater vitality of the deeper seated muscles, they possess much greater powers of resistance to the effect of heat than the skin. In making this application this fact should be recognized, and care taken to prevent the water running beyond the abraded surface and blistering the surrounding integument, as I have seen occur in several instances owing to the carelessness of the one making the application. *The application should be continued until* ALL OOZING *is stopped, the parts are thoroughly* GLAZED, *and the red hue of the tissues is decidedly deadened.*

The secretions which take place from operation wounds treated by this method are usually of a clear or slightly opaque serum, which, after thirty-six or forty-eight hours, may contain flocculi of coagulated albumin in a greater or less quantity, governed by the intensity of the application and the amount of the previous oozing. This appearance of albuminous flocculi is more especially observed in cases in which the wound is closed and treated by through-drainage. In open wounds the albuminous deposit is more appreciable to the eye, resembling in some cases the exudation of diphtheria. This exudation in the course of a few days is thrown off, leaving a healthy granulating surface beneath.

Immunity from septic absorption is afforded to patients who may have undergone capital operations under the most unsanitary surroundings. As a promoter of reaction, cases are constantly occurring which illustrate the power of hot water as a cardiac stimulant when applied to the abraded surface of an operation wound. In a case of hysterectomy performed by Dr. Nathan Bozeman, in which the symptoms of shock were urgent, I injected into the peritoneal cavity water at 120° F., with an immediate arrest of collapse, and rapid and complete reaction. In case of suppurative peritonitis, due to perforation of the appendix vermiformis, for which I performed laparotomy in June, 1886, I injected water at the same temperature as in the preceding case, thoroughly washing out the cavity of the abscess. The patient recovered, although he was bordering on collapse at the time of the operation.

The restorative powers exerted by hot water on the general circulation are also, to as great an extent, manifested on the local circulation of a part whose vitality is to a certain extent damaged by contused or contuso-lacerated wounds, as of the extremities, such as we often meet with in hospital practice among railroad employes. These injuries exhibit every variety of severity, from simple rupture of the skin, with subcutaneous extravasation of blood, to a general crushing of the whole part into a homogeneous mass, for which the only remedy is amputation. For the treatment of every degree of injury except the last mentioned, the limb is placed in a water-bath as hot as can be borne, and retained for a half-hour at a time. These baths are repeated three or four times a day. The part injured, during the interval, is wrapped in oakum wrung out of hot water, and covered with oiled silk. By this method many a limb has been saved which seemed damaged beyond recovery.

The application is always made with a clean sponge or sheet lint, and is kept in contact with the part for several minutes; or frequently renewed applications are made, until the changed appearance of the parts is observed as previously described.

Again, the object of a high temperature for the coagulation of the albuminous exudate on the surface of the wound is not recognized. The temporary glazing which occurs over the surface of the wound, as the oozing gradually and spontaneously ceases, must not be confounded with, nor considered as identical with, that produced by the application of hot water.

The glazing first named is nothing more than the result of coagulation of the sanguineous flow, having a surface of serum with an underlying clot, and due to fibrinous contraction and a process of dessication. It is highly putrescible and easily washed away. As albumin at the temperature of the body is fluid, it possesses no protective power and partakes of the same liability to putrefaction as the other elements of the exudate. Hot water applied deprives it of its putrescible property, and it will exist unchanged for an indefinite period. I have kept a film of coagulated albumin, applied to a piece of fine linen, unchanged for a period of over four months, while the beef-tea, for which the albuminized linen was used as a cover, remained absolutely unchanged for a like period.

In the "International Encyclopedia of Surgery," we find the following percentage of mortality for major amputations by the authors enumerated:

	Cases.	Mortality. Per cent.
Malgaigne	560	53.3
Trélat	1,038	47.5
Golding Bird	859	31.8
Callender	358	20.6
Butlin and McCready	416	18
Holmes	500	31.6
Spencer	557	26.9
Chadwick	692	26
Gorman	296	36.4
Varick	90	44.4
Norris and Morton	982	25
Ashhurst	100	28
Total cases	6,448	
Mortality		32.9

In the London *Lancet*, April 9, 1887, we find at page 720 a paper entitled "The Result of Major Amputations Treated Antiseptically in the Newcastle-on-Tyne Infirmary from April 1, 1878, to December 31, 1886," by Mr. Frederick Page, as follows: Three hundred and eighty-two major amputations, with a mortality of 7.5.

At the University College Hospital, up to May, 1871, of 307 consecutive major amputations, 79 proved fatal—a mortality of nearly 25 per cent.

Of 53 consecutive major amputations performed by me and treated with hot water, I report 39 primary cases with 2 deaths, and 14 secondary cases with 1 death: Mortality, 5.6 per cent.

One case might with propriety be excluded from the list of unsuccessful cases, as he died of a disease totally unconnected with the amputation, and which he had suffered from on several occasions previously. Excluding this case, the rate of mortality would be reduced to 3.7.

Of the 53 cases recorded above, 44 were performed on account of railroad injuries. Thirty-four of the 53 cases reported by me occurred in St. Francis's Hospital, Jersey City, from August 12, 1879, to August 1, 1887, with the following result:

	Cases.	Recovered.	Died.
Thighs	16	16	..
Legs	4	4	..
Arms	5	5	..
Forearms	6	6	..
Hip joint	1	1	..
Shoulder joint	1	1	..
Right arm and left thigh	1	..	1
Total	34	33	1

Mortality, 2.9 + per cent.

During the same period, in the same hospital, in the same wards, and with the same hygienic surroundings, there were done 25 major amputations under Lister's method, with the following result:

	Cases.	Recovered.	Died.
Thighs	10	6	4
Legs	3	3	..
Arms	7	6	1
Forearms	2	2	..
Shoulder joint	1	..	1
Both legs	2	1	1
Total	25	18	7

Mortality, 28 per cent.

Enough has been said to illustrate the therapeutic effects of hot water in surgical practice. It has stood the test of time and experience, and fulfilled every claim made for it. The results obtained in major operations under its use are unexcelled by any other method of antisepsis, while in the matter of major amputations it is unequaled. Simplicity and convenience are its characteristics.

The baseless fear of using water too hot may have deterred some from using the method, while others again look with disdain at the lack of display of the paraphernalia employed, the homespun nature of the appliances used, and there is absent that foreign glamour which to some presents an irresistible fascination.

BLEPHARITIS MARGINALIS AND ITS TREATMENT.—(A. D. WILLIAMS, of St. Louis, Mo., in *St. Louis Med. and Surg. Jour.*)—This is the technical name for inflammation of the edges of both lids, but is not entirely correct, as it does not indicate the exact nature of the trouble. The primary disease is in the roots or bulbs of the lashes. In bad cases, however, the disease of the bulbs extends to the adjacent tissue and often involves the whole free margin of the lid. Then it becomes properly blepharitis marginalis. The exact cause of the disease is unknown.

If the lashes are long and matted together by the crusts, making it difficult to remove the latter, snip them off close to the skin with scissors. Then remove all the scales and scabs with as little violence as possible. If large ulcers are found beneath them, touch them with the end of a probe, dipped into a strong solution of nitrate of silver (about 20 grains to the ounce). Dry the lids off and rub over the entire free margins an ointment composed of vaselin and yellow oxide of mercury (1 grain of latter to 1 drachm of former). This ointment must be well rubbed into the sores and in among the roots of the lashes. A little of the ointment should be allowed to remain among the lashes to be gradually absorbed. The patient takes the ointment home with instructions to rub it well into the lids two to three times a day, always wiping off the superfluous ointment so the lids will not look too greasy.

This treatment, faithfully carried out, will soon make the worst cases of blephmaritis marginalis get well. The treatment, however, should be continued for quite a while after the lids apparently get well, in order to guard against a return of the trouble. In making the ointment the medicine should be *well* mixed with the vaselin by rubbing them *well* together. Pulling the lashes out in these cases is unnecessary, and may be harmful, though writers often advise its The lashes soon begin to grow vigorously and the "bald" lid is promptly covered with a new crop, relieving entirely the ugly deformity. Internal medication is unimportant, but may be used for other indications.

ATROPIA INJECTIONS FOR GONORRHEA.—I wish to call attention to the value of urethral injections of sulphate of atropia in urethral and vesical irritability produced by gonorrhea. Where gonorrhea is accompanied with much vesical irritation, frequent urination, and tenesmus, I find the symptoms speedily relieved by an injection of one quarter to one-half grain of sulphate of atropia in one or two drachms of water, pressed gently along the urethra into the bladder. I have used it, also, in a patient who had taken an overdose of cantharides, which produced great vesical tenesmus and pain in passing water. One injection gave immediate relief. I leave the injection in the bladder, and have never seen any poisonous effects from the drug. I think it superior to the salts of cocaine, as the effects are more lasting.—D. W. BOONE, M. D., *Med. and Surg. Reporter*.

DIFFERENTIAL DIAGNOSIS OF ULCERS OF THE FACE.

LUPUS.	RODENT ULCER	EPITHELIOMA.	SYPHILIS.	STRUMA
In young people.	In elderly patients.	In adult life.	In children.	In children.
Attacks skin of ala of nose.	Favorite position — the skin of lower eyelid.	Attacks junction of skin and mucous membrane — lips, nose, eyelids.	Affects corners of mouth and margins of nose with deep scars.	Superficial eczematous ulceration, with crusting on lips and nose, leaving scars behind.
Commences in a discolored tubercle.	Commences often in a brown horny patch.	Commences as a small irregular tubercle.	Commences often in vesicles or blebs.	
Ulceration superficial and slowly spreading across the cheeks, healing at one part and breaking down at another.	Spreads steadily with no induration. No tendency to heal.	Infiltrates from first and extends rapidly	In adults. Superficial, more or less circular multiple ulcers about any part of face, with scars of healed ones; or deep, unhealthy cavities from breaking down of gummata.	
No glandular affection.	No glandular affection.	Glands involved.		
Not usually painful.	Not painful.	Painful.		

—*Christopher Heath, London.—Med. Record.*

TONSILLITIS.—Let the patient wet his forefinger and dip it into powdered bicarbonate of sodium. The surface of the tonsil should be rubbed with this finger every five minutes during half an hour, afterward every hour during the same day. Three applications a day are sufficient. The author since adopting this treatment has not had to lance a single inflamed tonsil.—*Lyon Medical.*

To remove rust-stains from nickle-plated ware, the article is thoroughly greased, and after several days rubbed off with a cloth moistened with ammonia. If any spots are still visible they are touched with dilute hydrochloric acid and immediately rubbed off. The ware is then washed and polished with polishing powder.—*Pac. Rec. Medical Science.*

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Fahnestock's tonsilotome, finest	5.50	7.00
10 vial, genuine morocco pocket case	2.35	2.50
Amputating and minor operating case	19.50	27.00
" " trephining case	29.60	35.00
Hypodermic Syringe, ordinary	2.00	2.50
" " finest; glass and hard rubber	2.75	3.00
Aspirator, and stomach pump (a perfect instrument) see page 116	18.00	18.00
" French style	11.50	14.00
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Paul E. Wirt fountain pen (best ever made), by mail	2.50	2.50

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PIL. PHOSPHORI CO. [Warner & Co.]

℞ Phosphori 1-100 gr.; Ext. Nucis Vomicæ ¼ gr.

DOSE.—One or two pills, to be taken three times a day, after meals.

THERAPEUTICS.—As a nerve tonic and stimulant this form of pills is well adapted for such nervous disorders as are associated with impaired nutrition and spinal debility, increasing the appetite and stimulating digestion.

PIL PHOSPHORI CUM NUC. VOM. [Warner & Co.]

℞ Phosphori, 1-50 gr.; Ext. Nucis Vom., ⅛ gr.

THERAPEUTICS.—This pill is especially applicable to *atonic dyspepsia*, depression, and in exhaustion from overwork, or fatigue of the mind. PHOSPHORUS and NUX VOMICA are ***sexual stimulants***, but their use requires circumspection as to the dose which should be given. As a general rule, they should not be continued for more than two or three weeks at a time, one or two pills being taken three times a day.

PIL. PHOSPHORI CUM FERRO ET QUINIA ET NUC. VOM. [Warner & Co.]

℞ Phosphori, 1-100 gr.; Ferri Carb., 1 gr.; Ext. Nuc. Vom., ¼ gr.; Quinæ Sul,, 1 gr.

DOSE.—One pill, to be taken three times a day, at meals.

THERAPEUTICS.—The therapeutic action of this combination of tonics, augmented by the specific effect of phosphorus, on the nervous system, may be readily appreciated.

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MEDICINE.

ANTIPYRETICS IN FEVER.—At the recent meeting of the Association of American Physicians, Dr. H. C. Wood, of Philadelphia, opened a discussion on this subject.

In order to make the matter as brief as possible, he had prepared certain propositions which he would state, and then give what he thought to be the proof of their correctness. The *first* proposition was, "Fever is a disturbance of calorification, in which, through the influence of the nervous system, heat dissipation and heat production are both affected. If there be a fever which is produced by the direct action of a poison, independently of the nervous system, we have no proof of its existence."

If an animal's temperature rises, there must be a certain number of heat units in producing that rise. If the temperature falls, there must be a corresponding lessened production of heat. In his experiments the agent used to produce the fever has been the pyogenic principle found in ordinary commercial pepsin. After the substance has been introduced, the animal is put into a calorimeter. The animals used in the experiments have been dogs. In the normal animal, heat production and heat dissipation are correlated functions. When the poison is injected it is found that heat dissipation increases at the time that heat production is diminishing, so that the fall of temperature was in part the result of heat dissipation and in part the result of diminished heat production. It is impossible that there should be this wide disturbance of these two functions simultaneously, unless the poison which produces the fever acted upon some one central organ, and that must be the nervous system. McCallister, of London, while believing that fever is often produced through the nervous system, thinks that at times it may be produced by widespread tissue change caused directly by the poison, his reasoning being that in the advanced stage of fever the temperature is higher than at the beginning. He says that the time when the poison is at its maximum does not correspond to the time when the fever is at its maximum. The objection to this argument is, that we do not know that the poison of the disease is the direct cause of the fever. The poison which causes the disease in scarlet fever, etc., is probably not the poison which causes the fever. The latter is probably generated in the system.

Second, "Heat production is regulated by a nervous apparatus, our knowledge of which is still imperfect. There is certainly an inhibitory center which depresses or controls the production of heat. It probably does this by acting upon the trophic cells of the gray matter of the spinal cord. It is possible also that there is a center which, when excited, increases tissue change, but its existence has not yet been proven." The speaker then gave a *resume* of the experiments which he had performed which, in his opinion, proved the truth of the above proposition.

Third, "Heat dissipation is regulated through the vasomotor system, so that vasomotor paralysis is followed by an enormous loss of animal heat, and under unfavorable circumstances by death from cold." If section of the cord is made in such a way as to get vasomotor paralysis without destruction of the respiratory centres, the heat dissipation arises enormously. If the animal is kept in a temperature of 50° or 60°, it dies in a few hours of progressive loss of heat. If kept in a warm chamber, it lives for days. The cause of the rapid heat dissipation is the opening of the blood vessels of the surface of the body.

When these remarks are applied to a study of antipyretics, it is seen that drugs may lower bodily temperature in health or in fever by increasing heat dissipation. In this way act all agencies which cause vasomotor paralysis. Antipyretics acting in this way may be called false antipyretics. Then it is conceivable that there may be drugs which act on heat production through the inhibitory nerve apparatus, of which mention has been made. Such drugs may for convenience be called true antipyretics. Aconite, veratrum viride, and drugs of that class belong to the false antipyretics. Whether or not there are any true antipyretics has until recently been a question which we have been unable to answer. With regard to antipyrin, certain experiments made in the University of Pennsylvania seem to give some positive results. Care must be exercised in these experiments not to confound a normal defervescence with the action of the drug administered. In the dog the use of antipyrin diminishes both heat production and heat dissipation, the former being diminished more than the latter. It is probable that heat production is primarily affected. The question arises whether this result be due to an effect on the circulation. He has found that antipyrin has no effect upon the circulation. The blood pressure was uninfluenced by its administration. He therefore concluded that the action of antipyrin upon the bodily heat was entirely independent of any action upon the circulation, and the probabilities are, of course, that it acts through the nervous system. Beyond this our present knowledge does not extend.

DR. FRANCIS MINOT, of Boston, then presented some remarks on the treatment of typhoid fever by antipyrin and thallin, based on the observation of twenty-four cases treated in the Massachusetts General Hospital, the object of the study being to ascertain the proper dose of the drugs, their general and specific effects upon the patients, the results from their continued use as compared with those from their occasional employment, any unfavorable results, and the general effect of antipyrin and thallin upon the course of the disease.

The following conclusions were reached: 1. Both antipyrin and thallin have a remarkable power of reducing the temperature in typhoid fever. 2. In no case was the use of these refrigerants apparently followed by any unfavorable effect upon the course of the disease. 3. The general condition of the patient was more comfortable after taking antipyrin and thallin, which were often followed by sleep. 4. The refrigerant medication by antipyrin and thallin appears to have no specific or decided effect upon the course or issue of typhoid fever. It often contributes much to the patient's comfort, perhaps indirectly promotes his safety. 5. The effect of antipyrin and thallin in promptly lowering the temperature, shows that the danger in typhoid fever does not consist in high temperature alone, and that the latter is rather an index of the violence of the abnormal condition which we call fever, though perhaps adding somewhat to the danger. 6. By the internal use of antipyrin and thallin, all the effects which are claimed for the treatment of typhoid fever by the cold bath are readily obtained without the trouble and inconvenience of the latter method, and without exposing the patient to the dangers of exhaustion and shock consequent on the fatigue of removal from bed. 7. These remedies may be given without danger to the youngest patients in suitable doses; and, indeed, their beneficial effects are more decided and the unfavorable consequences are less observable than with adults.

DR. ATKINSON, of Baltimore, said that so far as the temperature reducing power of these agents is concerned, there can be no question that we are coming more and more to realize that elevation of temperature is far from being all there is in pyrexia. As regards the relative merits of thallin, antipyrin, and antifebrin, the tendency to chilling after the use of thallin is decidedly greater than after the use of antipyrin, while the latter is more apt to produce nausea and vomiting. He was disposed to disagree with the statement that the use of these drugs can take the place of the external application of cold water. It has recently been reported that one observer abroad had treated two hundred cases in private practice by the use of baths with a mortality of nothing, in army hospitals he has had a mortality of five per cent., and in ordinary hospital practice a mortality of less than 8 per cent. Although with antipyretics we can reduce the temperature at pleasure, yet the duration of the case is not lessened, and in some cases it has been thought to be prolonged.

DR. WOOD remarked that we must not look upon the use of cold water as acting merely by the abstraction of heat. Its action is more than this. It probably exerts some influence through the superficial nerves.

DR. GEORGE L. PEABODY, of New York, had found that a certain proportion of cases which do not bear the cold bath will bear the use of antipyretic drugs, while, on the other hand, the bath may be used in a certain number of cases in which antipyretics cannot be applied. From clinical experience he was convinced of the truth of the statement of Dr. Wood, that the cold bath accomplishes more than the simple reduction of temperature. Its soothing effect upon the nervous system is greater than that accomplished by the reduction of temperature by antipyretic drugs. He believed that in many instances the course of the disease is favorably modified by the use of the cold bath. Another important matter is that since the introduction of these methods of antipyresis, the number of relapses seems to be greater and more fatal. He differed from Dr. Wood on the point that antipyrin acts solely by diminishing heat production, and that it does not increase heat dissipation. It seemed to him that the increase of heat irradiation from the serface is very great, not only where it produces sweating, but also where it does not,

DR. W. H. WELCH, of Baltimore, said that it was a question how far rise in temperature is an important element in fever, and an element which calls for interference on the part of the physician. There is comparatively little evidence that the grave symptoms of fever are referable to the elevation of temperature. There is no doubt that the temperatures of 110° to 113° produce serious symptoms, but whether or not ordinary temperature of 105° to 107° exert any serious action on the body, is a question which is certainly unsettled. It can be shown that rabbits can be kept in a box with continuous rectal temperature of 107° for at least two weeks, provided the precaution is taken to keep the box well ventilated and the animals supplied with moist food. Patient may have a perfectly clear brain and no grave smptoms, with a temperature of 106° or 107°. On the other hand, there are severe and fatal cases af typhoid fever in which the temperature has never registered a great height. While in most cases there is a certain proportion between the height of the temperature and the severity of the disease, yet there are certain cases in which this proportion does not exist.

DR. WILLIAM PEPPER, of Philadelphia, had been disposed from his experience, to think that antipyrin and antifebrin are superior to thallin. Between the two former he had not noticed any marked difference. He had used both largely in a variety of cases and had not seen any of the dangerous symptoms which have been mentioned by some writers. The action of these drugs seems to be purely through the nervous system. He had seen no effect upon the circulation, upon the respiration, or upon the secretions, save that of the skin. Some of his observations have been of interest with reference to the relative value of the external use of cold water and the internal use of antipyretics. In the sudden acute pneumonias of children with a temperature of 106° or 107°, with initial convulsions, where the prompt and repeated use of cold baths has been without gratifying results, full doses of either of these antipyretics have produced a remarkably successful effect. In a recent case in a child with double croupous pneumonia involving two-thirds of the left lung, with a temperature of the rectum of 107°, and with repeated convulsions, cold baths failed to relieve the symptoms, although repeated at intervals of three hours. Antipyrin in repeated doses controlled the pyrexia at the beginning and on several occasions during the course of the disease, and after a severe struggle the child recovered. As to the ability of these agents to replace cold baths under all circumstances the evidence is not adequate. In the sudden hyperpyrexia occurring in the course of rheumatism he was not prepared to accept the view that these drugs are capable of replacing the cold bath. In these cases we have direct evidence that the high temperature is the direct cause of the symptoms, at least of the severe nervous symptoms. He was not one of those who consider high temperature in itself a dangerous symptom. There is no proof that high temperature, provided that it has not induced secondary changes, should be regarded other than as one symptom of the disease. He had many patients with typhoid fever with a temperature of from 103° to 105°, who had done perfectly well without any measures directed to the reduction of the fever. We, however, meet with cases in which these temperatures are attended with certain symptoms for which theer is apparently no other cause. In such cases we must consider that the hyperpyrexia calls for treatment. He had noticed the effect, to which attention has been called, that is, the deep and tranquil sleep which follows the administration of these antipyretics.

DR. GEORGE C. SHATTUCK, of Boston, had used both antipyrin and antifebrin largely, and he thought that antifebrin offered all the advantages of antipyrin without its disadvantages. It has none of the disadvantages which belong to thallin. Three or four grains of antifebrin accomplish the same results as are produced by a larger dose of the drugs. The disagreeable symptoms which some writers have referred to as following antipyrin are probably due to the fact that they follow the original recommendation and give 30 grains of the drug. The same benefit can often be obtained from 15 grains and often from 7 grains. With reference to the point suggested by Dr. Welch, he said that whether pyrexia is or is not a dangerous feature of the disease, we find that clinically where a patient has high fever, is irritable, impatient, and uncomfortable, the administration of one of these antipyretics, or the external use of cold water, produces a tranquil and refreshing sleep, and the patient awakes in a condition much better to continue the struggle with the disease.

DR. J. C. WILSON, of Philadelphia, agreed with other speakers that antifebrin has many advantages over thallin, particularly in its cheapness and in the smallness of the dose. A recent observation which he had made is interesting as bearing on the question of heat dissipation. He had been treating a case of typhoid fever in which, from time to time, antifebrin in five grain doses was given. These were repeated whenever the temperature reached 104° F. This caused copious sweating, with the usual reduction of temperature, amounting to three and a half or four degrees. On the last occasion one ninety sixth of a grain of sulphate of atropia was given with the antifebrin. No sweating occurred and the temperature was reduced only one and one-half degrees.

DR. JAMES T. WHITTAKER, of Cincinnati, differed from the gentlemen who seem to accept the view that fever is a neurosis. He thought that there is no proof that the nerve centres are distinctly irritated, and we have no proof that the agents which reduce fever act directly on the nervous centres. Is it not more probable, he asked, that the antipyretic action is really an antimicrobic action? We have some observations which go to show that the disease is caused by bacteria, or if not directly by some of their products, the ptomaines. Would it not be more rational to study the habits of these bacteria and address ourselves rather to the removal of the cause than to the counteracting of the effects.

DR. H. M. LYMAN, of Chicago, said that with regard to antifebrin and antipyrin his experience has been that of previous speakers, and his preference is for the former drug. He was disposed to regard their great value as proceeding not so much from their power to reduce temperature as from their general effect, especially upon the nervous system. He regards them as valuable adjuvants in the treatment of disease, largely from their hypnotic and tranquillizing effect upon the nervous system, to which allusion had already been mand. He has observed that in many instances where, in abrupt febrile affections, relief has not been secured from antifebrin and antipyrin this failure is frequently due to the presence of the condition we call rheumatic, and there salicylic acid gives the relief that we fail to get with the antipyretics.

DR. JOHN GUITERAS, of Charleston, had some experience with these drugs in the treatment of the continued fevers of warm climates, but here the results have been rather negative and have showed the advantage of stopping their use after they have been continued for a certain length of time. He had been called in consultation where the drug had been continued for ten or fifteen days, each time that it was given producing a certain reduction of the temperature, but having no permanent benefit, and the patients have begun to improve so soon as the drug was stopped. It has seemed that when given continuously in this way these antipyretics have an effect on the vasomotor system. The pulse is weak and dicrotic and he considers it advisable to give digitalis. The effect of cold-water baths in these continued fevers of the South seems more beneficial. If continued for two or three days they often favorably modify the course of the disease.

DR. PEABODY, of New York, said with reference to the point suggested by Dr. Whittaker, that there was no question in his mind that a considerable proportion of cases of typhoid fever can be aborted by antiseptic treatment of the intestinal ulcers with naphthaline or resorcine. For the past two years he has treated all cases coming under observation during the first ten days of the disease with a calomel purge (ten grains), followed by naphthaline in such doses that at least seventy or eighty grains are taken during the twenty-four hours. Under this treatment he had without doubt succeeded in aborting many cases in which the symptoms were quite pronounced. He has not succeeded in cases coming under observation at the end of the second week.

DR. H. C. WOOD, with regard to the dissipation of heat by sweating, stated that in the dog, on which the experiments were made, there are but few sweat glands; there are a few in the paws and about the mouth, so that there could be no heat dissipation from this cause. Sweating in man does undoubtedly cause a dissipation of heat. With reference to the possible influence of antipyrin on fever, through some action on the bacteria causing the fever, he said that in the experiments to which he had referred no microbes were concerned in the production of the fever, which was induced by the pyogenic principle of pepsin.

DR. JAMES TYSON, of Philadelphia, reported a recent case of rheumatism in which the temperature suddenly went up to 105°, with alarming brain symptoms. Antifebrin in five grain doses failed to produce any effect. The patient was then put into a cold bath, and the temperature of the water gradually reduced to 72°. The discomfort experienced by the patient then prompted his removal from the bath. The thermometer in the rectum showed a reduction of only one-half of a degree, but within the course of half an hour the temperature fell three degrees. He scarcely thought that this was a natural defervescence, but must attribute it to the effect of the bath. The fall in temperature was followed by a disappearance of all the symptoms and the recovery of the patient. While he had never seen any serious results from the use of thallin and antipyrin, yet there have been symptoms which caused much alarm to the attendants. He had not seen such symptoms follow the use of antifebrin.—*Med. News.*

CHRONIC TEA-POISONING (THEISM).—A very excellent and valuable study of this subject has recently appeared in the *Boston Medical and Surgical Journal* by Dr. William N. Bullard, of Boston. His conclusions may be briefly summarized as follows:

1. The action of tea is cumulative.

2. Its action is more prodounced on the young, and on those subject to anemia, or in a depressed physical condition, although persons otherwise healthy not infrequently show toxic symptoms.

3. Among the class of people under consideration, who, as a rule, use medium grades of Oolong tea and Souchong (English breakfast tea), the average amount needed to cause toxic symptoms is a little less than five cups *per diem.*

4. Chronic tea-poisoning is a frequent affection, and that its most common symptoms are loss of appetite, dyspepsia, palpitation, headache, vomiting and nausea, combined with nervousness and various forms of functional nervous affections, hysterical or neuralgic. These symptoms are frequently accompanied by constipation and pain in the left side or cardiac region.

EDITORIAL DEPARTMENT.

J. F. BALDWIN, M. D., Columbus, - - - - EDITOR.

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ALL is not lovely in Philadelphia. The reports of the International Congress that appeared in the *Philadelphia Press* were not pleasing to the editor of the *Medical Register*, of that city, who thus vented his rage in his issue of September 24:

> "The utter disregard of truth, the malignity with which every trifling circumstance was seized upon and misrepresented, kept the Quaker City delegation continually apologizing for their secular press. The reports were evidently written by a man who had considered beforehand the methods of "writing down" the Congress; and, having mastered the art of calumny, brought to his task a nature congenial to the work, and a pen sharpened with the venom of disappointment. This man was I. Minis Hays, nominal editor of *The Medical News*. And let it be said here, that he showed infinitely more ability as a slanderer than he ever did as an editor. If he be wise, he will continue to devote his talents to the field in which he is so eminently calculated to excel."

And now comes the managing editor of the *Press*, and says, among other things, that

> "Dr. Hays was not the author of the dispatches in question, and he was not in any way responsible for them. They were sent from Washington by two regular correspondents of *The Press*, and I find, upon inquiry, that the identity of the writers was absolutely unknown to Dr. Hays, who, I may add, is at the present moment quite unknown to me, save by name."

We have, as yet, seen no response to this from the *Register*.

THE friends of the Sinnett Bill, for the registration of physicians and the control of diploma factories, must put in good work *now* with the candidates for election to the Legislature.

The author of the bill is himself a candidate for re-election, and we understand that the quacks and charlatans of the State are making a special fight against him, and are spending money freely to secure his defeat. In our opinion the issue is too important to be confined by mere party lines: a principle is at stake and political differences may well be forgotten. Let the Doctor be returned by a large majority.

IN our issue of March, 1885, there appeared a description of a new fracture-bed, devised by Dr. S. L. McCurdy, of Dennison, Ohio. This same bed, with four illustrations and one and one-half pages of text, is described in a work on treatment on fractures, by Dr. Schreiber, of Ausberg, just published by Dr. Beck, of Bern, due credit being given, of course, to the Buckeye inventor.

DR. R. HARVEY REED has been investigating the hygienic, or rather unhygienic, conditions of railroad coaches, especially the sleepers. His investigations, which were made with his usual painstaking thoroughness, extended to the water supply, closets, heating, ventilating, lighting, etc. His results and conclusions he incorporated in a paper which he presented to the Medical Congress.

THE WESTERN PENNSYLVANIA MEDICAL COLLEGE at Pittsburg, began its second annual regular course on Tuesday, September 27th, with a class of nearly 100.

The introductory address was delivered by the secretary of the faculty, Prof. W. J. Asdale.

This college requires an entrance examination and provides a three years' graded course. Its success has been unexampled.

THE STENOCARPINE SENSATION; AN ATTEMPT TO IMPOSE UPON THE MEDICAL PROFESSION.—Our readers are doubtless familiar with the reports of Drs. J. H. Claiborne, Hermann Knapp and Edward Jackson, concerning the so-called new local anesthetic, Gleditschine or Stenocarpine, which were published in the *New York Medical Record*, July 30th, August 13th and October 1st; and *Philadelphia Medical News*, September 3d; in which the Gleditschine was claimed to possess remarkable anesthetic and mydriatic properties.

It will, therefore, be of interest to them to learn that Messrs. Parke, Davis & Co. announce that an investigation at their laboratory of a solution purporting to be a 2 per cent. solution of Gleditschine, or Stenocarpine, which was supplied by Messrs. Lehn & Fink, of New York, has developed the fact that this solution, with which the experiments thus far recorded have been made, contains 6 per cent. of Cocaine and a sulphate of a salt which further experiment is likely to prove to be Atropia.

F. A. Thompson, Ph.C, also reports, after careful experiment with the leaves of Gleditschia triacanthos, from which Gleditschine or Stenocarpine is claimed to have been derived, that they contain only an infinitesimal percentage of an amorphous alkaloid, devoid of anesthetic or mydriatic properties.

In the light of these facts it seems probable that the Stenocarpine sensation should be classed with the Hopeine fraud of malodorous memory, and that the physicians who have already published reports regarding Gleditschine or Stenocarpine have been the victims of a clever hoax.

FOR THE NOVEMBER FORUM.—President Barnard, of Columbia College, has a sharp article on the Knights of Labor, in which he charges them with "blockading industry" and "attempting to coerce society." Ex-Governor John D. Long, of Massachusetts, writes on "The Use and Abuse of the Veto Power," referring especially to President Cleveland's vetoes. Senator Colquitt, of Georgia, defends the Democrats of the South against the charge that they suppress the Negro vote by intimidation and fraud. The series of articles on "The Object of Life," that has for some months been running, is closed by a contribution from W. S. Lilly, one of the ablest philosophical writers of England. In an article on "Avoidable Dangers of the Ocean," Lieut. V. L. Cottman, Superintendent of the Maritime Exchange of New York, shows that most of the disasters to steamships are directly chargeable to the recklessness of their captains. Rev. Dr. Henry Van Dyke writes in refutation of the claim of the Socialists that the Mosaic law and the New Testament teachings favor their doctrines.

PROF. LOISETTE'S MEMORY DISCOVERY.—Prof. Loisette's new system of memory training, taught by correspondence at 237 Fifth Ave., New York, seems to supply a general want. He has had two classes at Yale of 200 each, 250 at Meriden, 300 at Norwich, 100 Columbia Law Students, 400 at Wellesey College, and 400 at University of Penn., &c. Such patronage and the endorsement of such men as Mark Twain, Dr. Buckley, Prof. Wm. R. Harper, of Yale, &c., place the claim of Prof. Loisette upon the highest ground.

SANDER & SONS' EUCALYPTI EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Griefswald.

BROMO-SODA—On a recent trip to Europe on both the outward and homeward passages I used Warner & Co.'s Effervescing Bromo-Soda with great success in preventing and relieving sea-sickness. The quantity given was a heaping dessert-spoonful, repeated hourly if necessary. I believe Bromo-Soda to be a very valuable preventive and remedy for sea-sickness. It was certainly unfailing in my hands.

WM. H. KEIM, M. D.,
2015 Ridge Av., Phila.

NEW BOOKS.—Just as we go to press we are in receipt of a new work on Physiology, by Prof. Henry C. Chapman, of Jefferson Medical College, and of a new edition (the 12th) of Druitt's Surgery. We are also in receipt of advance sheets of a new edition of Gray's Anatomy. The American editor is Prof. W. W. Keen. Considerable re-arrangement of the old matter, and additions of new, are noticeable, while many of the illustrations are handsomely colored. The price, however, remains the rame, except that the edition in colors is a trifle extra.

A CABLEGRAM from London, of October 25th, states that Wm. R. Warner & Co., of Philadelphia, received the highest award from the American Exhibition in London for superiority of their sugar-coated pills and effervescing salts.

REVIEWS AND BOOK NOTICES.

A Tretise on Diseases of the Skin, with special reference to their Diagnosis and Treatment, including an Analysis of 11,000 Consecutive Cases, by T. McCall Anderson, M. D., Professor of Clinical Medicine in the University of Glasgow, etc., with Colored Plates and numerous Wood Engravings. P. Blakiston, Son & Co., Philadelphia. Octavo. 650 Pages. cloth, $4.50; leather, $5.50.

There has been no complete treatise on Dermatology issued for several years; Professor Anderson has, therefore, chosen an opportune time to publish his book. For nearly twenty-five years the author has been a general practitioner and a hospital physician, with unusual opportunities for the study of this class of diseases, though not a "specialist," as the term is understood. His experience is, therefore, of great value, and physicians will feel that, in consulting this work, they are reading the experience of a man situated like themselves, who, with the same difficulties of diagnosis and treatment, has surmounted them successfully. We believe this to be a valuable feature of the book that will be recognized at once; for it is undoubtedly a fact that a work like the present contains much practical information and many hints not to be found elsewhere.

To help him the author has had the assistance of several gentlemen of special experience. Dr. James Christie, from a long residence abroad, is enabled to speak with authority on the diseases of foreign climes; Dr. Hector C. Cameron, Surgeon to the Western Infirmary, Glasglow, has contributed most of the purely surgical sections; and Dr. William Macewen, surgeon to the Royal Infirmary, Glasglow, has prepared the article on ulcers.

A Manual of the Physical Diagnosis of Thoracic Diseases. By E. Darwin Hudson Jr., A. M., M, D., late Professor of General Medicine and Diseases of the Chest in the New York Polyclinic; Physician to Bellevue Hospital, etc. 1 vol., 8vo, pp. 162. Nearly 100 illustrations. Muslin. Price, $1.50. New York: Wm. Wood & Co.

Owing to the death of the author just as the manuscript was placed in the printer's hands, the task of placing this valuable work before the profession fell to the lot of his friend, Dr. Laurence Johnson, of New York. The diagrams illustrating the text are abundant and true. The style and classification adopted by the author render the book more valuable by reason of its terseness and clearness, and make it a most valuable exposition of the principles of auscultation and percussion as applied to thoracic diseases. The book could well find a place in the library of every physician.

Insanity: Its Classification, Diagnosis and Treatment. A manual for students and practitioners of medicine. By E. C. Spitzka, M. D., Pres. of the New York Neurological Society, etc., etc. 8vo, pp. 423. New York: E. B. Treat, 1887. Price, $2.75.

The author of this work, now in its second edition, is one of America's best-known specialists in neurology. This treatise has already been accepted as a useful book of reference, especially in medico-legal cases. The first part treats of the general character and the classification of insanity. The special forms of insanity are considered in part second. The last section, about one hundred pages, is the most valuable, and treats of insanity in its practical relations as the practicing physician is called to treat it. It treats of the method of conducting an examination, of the diagnosis between real and pretended insanity, of the physical and psychical causes, and the treatment, moral, medicinal and hygienic, of the insane. The book will prove valuable to all physicians, especially, perhaps, to such as are liable to be called as experts in court, or to assist the probate judge in an inquest of lunacy.

A Hand Book of General and Operative Gynecology, Volume II., by Dr. A. Heger, University of Freiburg, and Dr. R. Kattenbach, University of Giessen, in two volumes.

Diseases of the Female Mammary Glands, by Th. Billroth, M. D., of Vienna, and New Growths of the Uterus, by A. Gusserow, M. D., of Berlin. Illustrated.
These two Volumes constitute Volumes VII and IX. of the "*Cyclopedia of Obstetrics and Gynecology*" (12 vols., price $16.50), issued monthly during 1887. 'New York: William Wood & Co.

1. This volume treats in a most satisfactory manner of the operations on the tubes, uterus, broad ligaments, round ligaments and vagina; in urinary fistules, for uterine prolapse, and on the vulva and perineum. There are 248 wood cuts, which indicate how profusely the text is illustrated.

2. This work is a most excellent one on diseases of the breast and uterine neoplasms. The text is clear and to the point, while the illustrations are abundant and well executed.

It affords us pleasure to bear testimony to the value of all the volumes belonging to the "*Cyclopedia of Obstetrics and Gynecology,*" and which are offered the profession at an extremely low figure.

Differential Diagnosis: A manual of the Comparative Semeiology of the more important Diseases. By F. de Havilland Hall, M. D., Assistant Physician to the Westminster Hospital, London. Third American Edition, Thoroughly Revised and Greatly Enlarged. Edited by Frank Woodbury, M. D., Professor of Therapeuties and Materia Medica and of Clinical Medicine in the Medico-Chirurgical College, Etc. Philadelphia: D. G. Brinton, Publisher. Price $2.00.

We have noticed the former editions of this excellent work, as they appeared. The present edition contains such changes and additions as seemed necessary to its completeness, and we feel assured that none who secure a copy will be disappointed.

Diarrhea and Dysentery—Modern Views of their Pathology and Treatment. By A. B. Palmer, M. D., Professor of Practice of Medicine and Clinical Medicine in the Department of Medicine and Surgery of the University of Michigan. George S. Davis, Detroit, Mich. Paper: 12 mo., 25c.

This is No. 3 of the Physicians' Leisure Library. It is a well written book of 124 pages, and contains all the modern views of the etiology, pathology and treatment of diarrhea and dysentery.

PUBLISHERS' DEPARTMENT.

McCORMICK, S. C., October 13, 1887.

Messrs. Hann & Adair, Columbus, O.:

DEAR SIRS—Enclosed you will find one dollar for my subscription to your valuable journal. It is positively the best in the world for the money. Yours truly,

J. P. ROBINSON, M. D.

COLUMBUS, NEB., October 11, 1887.

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GENTS—Please find enclosed New York draft for $2.50. Please square up my subscription to "COLUMBUS MEDICAL JOURNAL." Also send me one Paul E. Wirt fountain pen. This is the third Wirt pen that I have ordered through you. I think they have no equal as a fountain pen. Respectfully yours,

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COMMUNICATIONS.

SOME NEW OPERATIONS IN ABDOMINAL SURGERY, ILLUSTRATED WITH A NUMBER OF SPECIMENS.

BY R. HARVEY REED, M. D.,* MANSFIELD, O.

A Paper read before the Annual Meeting of the Muskingum Valley Medical Association, held at Zanesville, O., Nov. 29th, 1887.

The day of "expectant treatment" of wounds of the abdominal viscera is far spent; and opium must soon give place to the knife of the skilled surgeon and the antiseptic dressing.

Notwithstanding the feeble protection afforded the abdominal viscera, and their great liability to injury from various sources, and the vitally important part they play in the human economy, yet it was not until recently that we have had what might be considered a satisfactory and practical method furnished us for the treatment of the many wounds and maladies incident to these viscera.

Practically speaking, it is only a few years since surgeons were forbidden to open the abdomen and search for injuries of the viscera; but on the contrary were content with stupefying the patient with opium (which was designated by the flowery title of "locking up the bowels," and which seldom allowed them to be unlocked this side of eternity), and insisting on perfect quiet, and trusting to Dame Nature for results.

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*Surgeon-in-Chief Transportation Department, B. & O. R. R., west of the Ohio River.

Mortifying as these results have usually been, yet the benefits from operative interference were little if any better, and few surgeons dared to break the easy old rule of "locking up the bowels" and "waiting for something to turn up."

The obstacles in the way of studying anatomy in earlier times, and the necessity for a thorough knowledge of the human body, was no doubt an insurmountable barrier, for the time at least, in the path of the progressive surgeon of the thirteenth and fourteenth centuries, to which we might well add the prejudices against experimenting on the lower animals (which exist too abundantly at the present day in many localities), but which have at last been the door that has let the profession out of the dungeon of ignorance and false theories in the treatment of wounds of the abdominal viscera, into the daylight of truth and practical wisdom.

The day has come when every active, progressive surgeon should have his laboratory for vivisection, and there study out every intricate problem that may puzzle him in his daily practice. It is largely by such means that we have attained to what we know at the present day of many intricate problems of surgery, and it is only by the continuation of such investigations that we can solve those problems that are yet puzzling the surgeons of to-day.

I could, to a certain extent, appreciate the difficulties under which the surgeons of a century and a half ago labored when I was told by a prominent surgeon of Bath, England, at the recent International Medical Congress, in speaking of vivisection, that if he or his colleagues were to attempt vivisection in his country as Americans do in this country, they would be put in prison before twenty-four hours, to which he added, "and I can now see how it comes that you Americans are taking the lead in surgery, and will, until we can have the privilege of performing the same experiments on animals you have the privilege of performing in America."

What a "golden hint" these few suggestions should be to the progressive, investigating surgeons of this country, who, I trust, will not fail to improve the opportunities they so liberally enjoy.

It is not only interesting, but instructive, to study the tardy progress toward practical success in operations on the abdominal viscera from the complicated loop sutures of Palfyn, in 1710, and Ledran, in 1742, to the common interrupted suture of the present day. All manner of devices were tried in the suturing of the intestines, from the wooden plates of Reybard, and the playing card splint of Sabatier, to the elder-wood canula of Theodoric and the calf's trachea brace of Duverger.

Nor were the minds of the surgeons confined to the suturing of the bowels alone; its union after division was of even more importance. As early as 1730 we find Ramdohr removing a large section of the intestine of a soldier, and simply inserting the upper end within the lower, and fastening it there, and getting union with recovery; but this operation, when weighed in the balance of practical experience, was found unsuccessful.

The mucous membrane of the inside of the bowel would seldom unite with the serous membrane of the outside of the bowel, which with other obstacles caused the procedure to be abandoned, although a modification of the invagination method was tried by Jobert and Reybard, yet all without practical success.

In 1824, Jobert conceived the idea of turning the serous membrane of the cut end of the lower portion of the bowel in, so that when the upper end of the bowel was invaginated into it, the two serous surfaces would come in contact, instead of a mucous and a serous membrane, as in the operation by Ramdohr. Although experimented on by Reybard, Begin and Gross, the operation was abandoned on account of "the uncertainty of its results, and the impossibility of distinguishing the lower extremity of the intestine with certainty."

In 1826, Denans endeavored to unite the bowel by the use of three metallic cylinders, one in each end of the bowel, a portion of which is doubled into each cylinder, and a third cylinder inserted into the end of each of the other two, and fixed there temporarily until the union of the serous surface would take place, and sloughing of all that portion that lay between the cylinders, which, with the cylinders themselves, were passed per rectum; yet the dangers and uncertainty of this operation soon condemned it.

We will not stop to describe Lembert's method, which was really a modification of Jobert's, and Gely's, which was only a modification of Lembert's. Amussat tried to improve on Denans's method by using a cork in the place of the three metallic cylinders, and yet, to sum it all up in a few words, none of these methods filled the surgeon with enthusiasm, or gave him courage and confidence in the treatment of wounds of the intestines.

Dr. Parks, of Chicago, has well said, even so late as 1884, "it is scarcely necessary for me to affirm in your presence the fact that with few exceptions the older writers and surgeons advocate the 'expectant treatment' in the management of wounds in the intestines." And in 1883, he conducted a valuable series of experiments "for the purpose of ascertaining the results to be obtained by immediate operations after these wounds, with the hope that the relation of attending circumstances and events would be interesting as well as useful, by adding to the data now in our possession other data from which may be determined more intelligently the course of action to be adopted when these cases come under our charge for treatment."

After a series of experiments, the same author says in his address before the American Medical Association, in 1884, in regard to suturing the bowel after bullet wounds "this way (that is the use of continuous suture) of treating the bullet openings in the bowel is susceptible of much wider application that would appear possible at first glance. I am quite well satisfied that it will take the place of excision in not a few cases of quite severe injury. The torn edges of the wound can be turned in, and the peritoneal surfaces fastened together, even in large wounds, with perfect confidence in the result of safe and secure adhesion following."

In the same article, he sums up the impressions made on his mind by these experiments, and says: "The fact is that it makes no difference whatever, what kind of suture is used, so that the principle of positively securing the application of two broad surfaces of peritoneum in contact with each other is certainly carried out."

As he has well said, the success did not depend on the kind of suture used so much as it did on the careful coaptation of the serous surfaces and their being kept in that position without extravasation or hemorrhage, until union was effected.

In a paper read before the surgical section of the recent International Medical Congress, Dr. Parks, in speaking of the uniting of the intestine, says: "My experience from experimental inquiry was positively in favor of two methods of procedure:—

"*First.* Cases in which the mesenteric border could not be saved were most successfully treated by making the section in healthy bowel tissue, and removing the injured portion with a triangular piece of the mesentery, the base of the triangle representing the length of the intestine removed."

He then commenced at the mesenteric border to insert his sutures, and says he never found it necessary to introduce more than one row of sutures, which he inserted so as to include "about one-third of an inch of peritoneum with the underlying muscular coat, and the sutures were placed about one-eighth of an inch apart.

"*Second.* Cases in which the mesenteric, or nutritive border can be saved — a plan which I have successfully adopted experimentally is as follows: The wounded part is cleanly cut out, leaving the uninjured mesenteric portion. From this the mucous membrane is stripped, and the muscular coat with its peritoneal covering drawn downward in a loop. This loop is closed with stitches, and the bowel circumference remaining fastened, as in complete resection."

Whilst Dr. Parks' experiments have developed valuable facts, and his method is a marked improvement over the various methods preceding his experimental researches, yet the long row of stitches and the danger of failure in getting the serous membrane properly and completely adjusted, renders it anything but a faultless operation, or one that could be fearlessly relied upon by the every-day surgeon.

To the practical originality of Prof. N. Senn, of Milwaukee, Wis., the profession of the world is indebted for some of the most remarkable advancements in intestinal surgery that the world has yet seen; and to him this association is indebted for the score or more of beautiful specimens I have the privilege of exhibiting to you this afternoon. For years this inveterate investigator has been quietly experimenting in this direction. The result of his labors he gave to the world in a most interesting and valuable paper read before the surgical section of the Ninth International Medical Congress, and the specimens I shall exhibit to you are only some of the actual results of his many carefully conducted experiments, and are simply silent witnesses of his inventive genius and practical skill.

You will observe here in these adhesive experiments with what rapidity and firmness the serous surfaces of the bowels have been cemented together; even where there has been no scarification whatever, there has been firm union in twenty-four hours by simply binding one surface to the other, and holding them thus in apposition; but where there has been scarification of one or both of the serous surfaces, you will notice the adhesion has been more determined.

Here is a unique specimen showing the result of a V-shaped portion taken from the convex side of the bowel, the animal being killed 43 days after. You will notice the marked bulging at the mesenteric attachment as well as the complete union of the edges of the bowel.

The next group of specimens shows the result of lateral implantation experiments. The first one, marked "Exp. B.," is the result of an Ileocolostomy in which the Czerny-Lembert suture was used, the animal being killed at the end of the 33d day. You will notice how completely the union has taken place, and the progress of the sutures in their escape into the inside of the bowel after they have completed their work.

By experiment 21, you will notice the results of the Czerny-Lembert suture in the lateral implantation experiments, the animal having been killed on the 21st day. In this specimen you will notice that the union is perfect, and all but one or two of the sutures have disappeared.

Example H. is almost a duplicate of the last (21), excepting there is acute flexion of the ileum, the Ileo-colostomy having been performed with the Czerny-Lembert suture, and the animal killed in 37 days. The sutures are nearly all intact yet, although the union of the bowel is complete.

Here is an obstruction of the bowel by flexion relieved by an Ileocolostomy in which the Czerny-Lembert suture was used, and the animal killed in 31 days (experiment V). In this specimen you will observe how perfectly the difficulty has been relieved, the sutures having nearly all been discharged, and the continuity of the bowel and its functions maintained.

Experiment 35, you will notice, is a lateral implantation with inclusion, the animal having been killed in 24 days, yet you will notice the union is perfect. In this experiment you will observe there is not less than three feet of the bowel included which has already begun to atrophy, while the contents of the bowel have been "switched off," as it were, at the point of implantation, leaving the included loop practically abandoned, which in consequence has commenced to undergo physiological degeneration.

The next three are lateral implantation experiments, in which the rubber ring was used, which method I will explain hereafter.

You will readily observe in experiment 97 the physiological exclusion of the discarded bowel referred to above, and whilst the animal was killed in 10 days, the atrophy of the abandoned bowel is more marked than in example 35, and the union of the bowel is complete.

In experiment 81 of this series of lateral implantation specimens, you will notice a piece of bone the dog has eaten, which has lodged in the new opening produced by this operation, while the union of the parts is complete, notwithstanding the animal was killed on the 13th day after the operation.

Experiment 75 is also a lateral implantation experiment, the result of the rubber ring method, and, while it has no special attraction over the rest of this series of experiments, it adds its testimony in favor of this method of operating.

The next specimen (No. 53) is an ileo-colostomy, in which decalcified bone plates were used in the one specimen, and rubber plates in the other. You will notice in the one where the decalcified bone plates were used, the union is complete, the plates having been digested, as it were, while the sutures are still remaining, although almost discharged from the inside of the bowel. In the other, the rubber plates will be found in place yet, although the union between the two bowels has been completed, and only awaits the loosening of the sutures and the detachment of the rubber plates. In both of these cases the dog was killed on the 14th day.

In experiment 67, we have a gastro-enterotomy produced by the rubber plate process, the animal having been killed on the 14th day. This experiment is a very interesting one, and shows how completely the union has taken place in so short a time, plates, stitches and all having disappeared entirely.

Experiment 69 is an ileo-colostomy produced by the rubber plate method, the dog having been killed on the 25th day, which shows a complete union of the intestine with an escape of the plates and stitches without even a trace of them remaining.

The next two specimens are invaginations; experiment 7 shows a resection on the third day of the invagination and the amount of injury done the bowel in so short a time, while the other shows the results of invagination after 11 days in a cat, and the amount and firmness of the adhesions formed.

Here is a series of five specimens of enterorrhaphy induced by the rubber ring method, which I consider among the most interesting specimens I have to show you to-day:

The first one we come to is the simple union of a divided ileum (Ex. 73), the dog having been killed after 11 days. You will observe how completely the union has taken place. Example 68 is a similar specimen, but shows how the ferule of omentum, which has been thrown around the splice of the bowel, has protected it from extravasation where the coats of the bowel have not yet completely united, the animal having been killed the seventh day. Experiment 76 shows complete union of the intestinal walls with the omental flaps completely adherent around the splice in the intestine, the dog not having been killed until the 25th day. Experiment 85 is almost a duplicate of the one preceding, the dog being killed on the 22d day. The same can be said of experiment 70, only the dog was killed on the 25th day. In experiment 54 the dog died on the 24th day, and you will observe nature had established a false passage by the side of the ring.

Experiment C. is an exceedingly interesting one, from the fact that 50 inches (over four feet) of the small intestine was removed by excision, and the cut ends of the bowel united by the Czerny Lembert suture, and complete union established, as you will see, the dog having been killed on the 47th day.

You have no doubt noticed there has been seven general classes of experiments performed, viz:

Adhesion experiments.

V-shaped excision experiments.

Lateral implantation experiments, by Czerny-Lembert suture.

Lateral implantation experiments, by rubber ring method.

Ileo-colostomy, by the decalcified bone plate and rubber plate method.

Invagination specimens.

Enterorrhaphy, by rubber ring method.

The adhesion experiments were performed by simply binding one bowel to the other by plates, and holding them there a given length of time. In some of these experiments neither of the serous surfaces were scarified, and in others both were scarified.

In the V-shaped excision experiments the mesenteric border of the bowel was left intact, while a large V-shaped piece of the bowel was excised, and the edges brought together by the Czerny Lembert suture, and held there until union was complete.

You will notice in the lateral implantation experiments an opening was cut in the side of one intestine, the edges of which were turned in so as to bring the serous surfaces of these edges in contact with the serous surface of the lateral bowel, which is inserted into the opening, and held there by the Czerny-Lembert suture until union is completed.

In the rubber ring method of performing the lateral implantation experiments, a light rubber ring, say from one-half to three-quarters of an inch broad, is cut open, and stitched together again, and is then inserted into the end of the bowel, which is to be inserted into the slit of its fellow, and is stitched there by a continuous suture, which is "whipped," as it were, over the end of the bowel and rubber ring. The end of the bowel thus prepared is now inserted into the opening made in its fellow, the edges of which have been turned in, as before described, and sutured there until union takes place. You will readily observe the rubber ring will act as a splint to hold the serous surfaces firmly together, and as soon as the adhesion has taken place, the ring, with the sutures, will come away and pass off in the stools.

The use of the decalcified bone plate in performing an ileo-colostomy as a sort of splint to the bowel, and the method in which it is used by Dr. Senn, are certainly unique. The idea was no doubt suggested by Reybard in 1827, in his crude use of the "oval plate of deal," but the superiority of decalcified bone over that of wood will at once be apparent, as the latter would soon be digested by the bowel, and thus gotten rid of, whilst the former would have to pass out per rectum, with all of its attending dangers.

If you will look at the model I have prepared, you will notice that in performing the operation by this method, two plates of decalcified bone are used, each of an oblong shape, about two inches in length by three-quarters wide, with an opening in the middle extending lengthwise about three quarters of an inch by one-eighth in width. Four strong threads or ligatures are attached to each of these, one at each end of the opening in the middle of the bone, and one at each side, and all the ligatures brought out on the same side. Having properly closed the end of each bowel to be united, a slit—say about three-fourths of an inch long—is made in the approximate side of each bowel, and extending lengthwise of the intestine. Into each of these slits is slipped the decalcified bone splint; the ligatures at each end of the opening in the splint are brought out through the ends of the slit in the bowel, while the side ligatures, which are armed with needles, as you see, are passed through the bowel at each side of the slit, which not only keeps the slit open, but fixes the splint in each bowel. The bowels are now approximate, so that the slit in each comes opposite the other, and each of the four ligatures is tied tightly to its fellow, which establishes a communication between the two intestines, and which soon become permanently adhered, as you will see by the specimens I have shown you.

The invagination specimens are of no special interest, except to show the extent of the adhesions formed in a given length of time, and the impossibility of relieving a patient thus afflicted by the ordinary "expectant" methods used, except in rare cases.

Even in the old method of operating, these adhesions have been the "spook" that haunted every surgeon; but now you will see by the decalcified bone method these adhesions and the portions of the bowel they involve can be "side-tracked," as it were, and a new channel opened, and the invaginated portion allowed to undergo physiological atrophy.

The rubber ring method of performing enterorrhaphy is very similar to that employed in the lateral implantation experiments, excepting the end of the bowel, armed with a rubber ring, as before described, is inserted into the side of the bowel, as in the lateral implantation experiments. Before inserting the upper bowel, in which the rubber ring has been properly secured, into the lower bowel, the end of the inferior gut is turned in so that when the superior end of the bowel is inserted into it the serous membranes would be brought in contact with each other and fastened there, with simply a suture on each side, which would include, as you will notice by the model, the walls of both intestines and the rubber ring.

The rubber ring method devised by Prof. Senn is really a modification of the old Jobert method, in which the end of the bowel was turned in so that the serous surfaces would come in contact with each other, but the improvement in the use of the rubber ring, which acts as a splint on the inside of the intestine, and the protection given the bowel by the band of omentum he throws around the outside of it at the point where the splice is made, has so improved and changed the original method as to really secure it the title of a new operation.

REMARKS.

We have learned from these experiments the rapidity with which adhesions go on in the destructive agencies of abdominal injuries, and at the same time how these same adhesions may be turned into valuable account in the reparative process of the same.

We can see how utterly useless it is to even expect the return of an invagination, after twenty-four or thirty-six hours, by the "expectant treatment" of the past, and still further, how hopeless a task it is to even attempt, by surgical interference, the reduction of an invagination, without destroying the continuity of the bowel.

By the same experiments we have learned to successfully "switch off," or "side track," if you please, that portion of the intestine containing the invagination, and by the use of the decalcified bone plate method, establish a new channel between the normal ends of the intestine, and leave nature to take care of the invagination on physiological principles.

In the same manner we can dispose of strictures of the intestine, or non-malignant tumors that cannot be removed, and the like, and thus save our patients untold distress and misery, and prolong many a valuable life.

We need not fear to perform the lateral implantation operation when necessity demands it, and feel that we are safe in comparison with the methods generally in use heretofore.

When the destruction of the bowel is such as to necessitate complete excision of a portion of it, we can, by employing the rubber ring method of performing enterorrhaphy, remove the injured portion of the intestinal tract, and with comparative safety unite the two ends in such a manner as to avoid all dangers of extravasation, with its attending complications, and at the same time with a reasonable assurance of getting a complete union in a few days, with the recovery of our patient.

A moment's comparison of Prof. Senn's methods of operating on the abdominal viscera, is sufficient, it seems to me, to convince any practical surgeon of their superiority over any of the other methods we have had heretofore for the surgical reparation of abdominal injuries, especially when you find his theories demonstrated by a multiplicity of experimental research, the results of which are before you to-day, in a tangible form, for your careful examination and honest criticisms, and which speak for themselves of the superiority of his methods of operating.

Before closing this modest reflection of the "experimental contributions to intestinal surgery," by Prof. Senn, permit me to offer the suggestion that you procure a copy of his remarkable paper at your earliest opportunity, and study it from beginning to end, and I can assure you that your time will be well spent, and that you will find his paper not only full of novel and original information, but ripe with practical suggestions, ready for the every day surgeon's use; and if you question any of his methods of operating, go to and repeat these wonderful experiments in your own laboratory, and improve on them if you can, or at best, satisfy yourself of their practical value.

Nov. 28th, 1887.

A CASE OF EXCISION OF THE ELBOW JOINT.

BY A. T. SPEER, M. D., NEWARK, OHIO.

Read before the Muskingum Valley Medical Society, November 30, 1887.

On the 9th day of August, 1887, I saw, with Drs. Alexander and Mattingly, of Newark, a boy about twelve years of age, who had been injured by the wheels of a car running over his right arm in such a way as to lay open the elbow joint, tear all the attachments of the muscles from the ends of the bones, comminuting to a considerable extent the proximal ends of the radius and ulna, fracturing the radius about three inches from the head, lacerating and crushing the soft parts extensively, and causing the humerus to be protruded through the wound about three inches, completely stripped of all its attachments. So far as we could tell the arteries supplying the forearm were uninjured. After placing the boy under the influence of an anesthetic, we made a careful examination of the injured parts, placing the bones in their normal position as near as possible. We then concluded that gangrene would certainly take place if we dressed the arm in that manner. So we were forced to choose between an excision of the joint or an amputation. We decided in favor of the former, reasoning that as the arteries seemed to be uninjured, there was a fair prospect that the operation would be successful. If it should fail an amputation could then be made with but little more danger than if the amputation had been made primarily. It was a question also discussed (as the boy lived in Zanesville) whether it would not be best to dress the arm temporarily and send him home, where his injuries could be attended to. It is hardly necessary to say to this Society that we decided to operate at once, as the reasons are all in favor of an immediate operation if there is any one present competent to perform it.

In making the operation only such pieces of the bones were removed as were freed from all muscular attachments. The humerus was bare for about three inches, and we were compelled to remove more of it than we wanted to, but being quite certain that necrosis would follow if we left the bare bone, we removed all that was exposed; we removed also about three inches of the radius at its point of fracture. The tissues were so torn that there was but little trouble in removing it. The ulna, being less injured than either of the other bones, only a few detached fragments were removed. The arm was then dressed with absorbent cotton, placed in a Levis splint, and the boy, several hours after, sent to his home in Zanesville, O. We ordered that all the pieces of bone we had removed be secured and sent to the surgeon who should have charge of the case. We were anxious that the attending surgeon should see the condition of the bones, as we removed a great deal more than is usually necessary in a case of excision.

The subsequent history of the case I learned from Drs. Reamy, Holston and Hildreth, who had charge of the boy after his removal home. There was a good deal of sloughing of the soft parts, and for a time it was feared that amputation would be required, but fortunately such was not the case. I saw the boy November 30th, a little more than three months after the operation. His arm was well, flexion and extension at the elbow joint, and the use of the hand and fingers are such as to warrant the prognosis that he will have a very useful hand and arm.

PECULIAR CASE OF PHYMOSIS; WITH OPERATION FOR ITS RELIEF.

BY F. H. WILLIAMS, M. D., BURLINGTON, OHIO.

W. M., a young man, twenty-two years old, came to my office August 15, 1887, and stated that he could not void his urine, having passed none for nearly eighteen hours. Inquiry developed the fact that he had always had difficulty in urinating, and an examination showed a phymosis, presenting some unusual features. The penis was small, and the prepuce tightly stretched over the glans, and seemingly adherent to its entire surface. There was no projection of prepuce beyond the extremity of the glans, such as is shown in the works on surgery, it covering the glans tightly. The finest probe could not be introduced into the very small opening in the prepuce, and which proved to be superior to the meatus. It was at once desired to relieve him by operation, and he was accordingly anesthetized, and an attempt made to introduce a small director, and then a probe, into the opening in the prepuce; this failing, the integument was picked up with forceps, incised, and a careful dissection made down to the glans, the adhesion between the prepuce and glans broken loose, a director forced up to the corona and the prepuce slit up to this point and down to the meatus, then with scissors a triangular flap of prepuce removed on each side down to the *raphe*, the mucous membrane and integument stitched with fine silk sutures, and the parts dusted over with iodoform. The sutures were removed on the fourth day, and union was complete, and the young man at work. The unusual features were the very close investment of the glans by the prepuce, and the length of time the condition had existed without serious symptoms.

OLFACTORY ACUTENESS.—Nicholls and Bailey (*Medical Press*) have recently published the result of experiments upon the relative acuteness of the sense of smell in individuals. A series of solutions of oil of cloves, nitrite of amyl, extract of garlic, bromine and prussic acid, were prepared by successive dilutions with water until the limit of preception was reached, and then the solutions were placed indiscriminately and submitted to a number of persons of both sexes to classify them properly by the sense of smell. The results showed that on the average the sense of smell was much more delicate in the males tested than in the females; but the degrees of keenness ranged widely as between individuals. Thus three male observers were able to detect one part of prussic acid in 2,000,000 parts of water, though its presence was not revealed by a chemical test; but others, of both sexes, could not detect prussic acid in solutions of almost over powering strength. The following figures give the average limit of delicacy of preception: Cloves—Males, 1 in 88,128; females, 1 in 50,667. Nitrite of amyl—Males, 1 in 783,870; females, 1 in 311,330. Extract of garlic—Males, 1 in 57,927; females, 1 in 43,900. Bromine—Males, 1 in 49,254; females 1 in 16,244. Prussic acid—Males, 1 in 112,000; females, 1 in 18,000.

A WRITER in the *Lancet* says: I have not failed once for many years by a single vesication over the fourth and fifth dorsal vertebræ, to put an end at once to the sickness of pregnancy for the whole remaining period, of gestation, no matter at what stage I was consulted. The neuralgic toothache and pruritus pudendi of the puerperal condition yielded as readily, and to one application.—*N. W. Lancet.*

DR. SIMMONS sent in a bill of $143,000 to the estate of S. J. Tilden for medical attendance during seven years and eleven months. The bill, which is the largest ever presented in the United States, will, it is said, be paid in due time.

SURGERY.

ON RECENT RENAL SURGERY.—The medical journals for the past few months have contained many reports of various operations on the kidneys. Nephrectomy, the extirpation of the kidney, nephrotomy, the incision of the kidney, and nephro-lithotomy, the removal of calculi from the kidney, are thus shown to be fully established operations.

Many of the reporters call attention to the difficulty in some cases of making a positive diagnosis of the lesion, of determining whether the symptoms are due to a calculus, abscess, or malposition of the kidney; and Mr. Thornton, in one instance, having every reason to do so, made a diagnosis of caculi in the left kidney, and opened the abdomen, expecting to remove calculi from that organ, but on palpation, none were detected. In the right kidney, however, calculi were felt, and five removed.

Then, too, it is important to know, especially if nephrectomy is contemplated, the condition of the supposed unaffected kidney. In women the ureters can, without much difficulty, be catheterized, and the urine of each kidney separately collected and examined. In men this cannot, as yet, be satisfactorily done.

Of tumors of the kidney, Tait says the diagnosis is not at all difficult.

In the first place, its situation makes it extremely different from tumors of the pancreas, with which it is most easily confused, and its peculiar mobility is a further sign upon which great reliance may be placed for the diagnosis. All enlarged kidneys are freely movable in the direction horizontal to the axis of the body, but they are not easily movable, if at all so, in the vertical axis of the body.

Tumors of the pancreas are movable with great difficulty in any direction.

Tumors of the gall-bladder are very often very freely movable, but neither tumors of the gall-bladder or pancreas can be felt from behind, whereas a tumor of the kidney can be embraced between the fingers if one hand is placed on the outside of the quadratus muscle and the other over the most prominent part of the tumor, and when the tumor can be felt between these two points it is pretty certainly renal.

The characteristic symptoms of renal calculus are lumbar pain, usually constant and increased by exercise, hematuria, renal colic, and sensitiveness to pressure over the kidney. Of these, the first is considered the most constant, and ten recently reported cases bear this out.

In eight of these cases marked lumbar pain was pretty constantly present. In two the pain was moderate, except after exercise, when it was severe.

In one case only was there constant hematuria. Three had bloody urine at intervals. In six cases there was no blood in the urine at the time of operating. Of these six, one had had an attack of hematuria six years previously; one two years previously, and one "some time past."

Four had had attacks of renal colic, two had had none, four not stated.

Pressure caused pain in six cases. In one it was not painful. Three not stated.

Tait reports a case in which the symptoms of stone were well marked—severe lumbar pains for five years, hematuria, pain on pressure—and which at the operation proved to be a case of renal abscess.

One other case he reports, in which he made the diagnosis of renal calculus, and which was one of pyonephrosis.

There is some dispute as to the most favorable incision to be made for nephrotomy, many preferring the oblique lumbar incision for this as well as for nephrotomy. Gross considers this the safer operation, as does Tait.

For nephrotomy or nephro-lithotomy nearly all writers recommend a lumbar incision, nearly parallel with the twelfth rib, and about one and one-half inches below it. Konig has used and advises an incision extending from just below the twelfth rib, along the outer margin of the erector spinæ muscle, nearly to the crest of the ilium, thence extending in a curved direction to the outer border of the rectus muscle, just above the umbilicus. The latissimus dorsi, oblique and transverse abdominal muscles are then cut through. To prevent ventral hernia, it is important that these muscles be sutured again, hence Konig advises that a suture be passed through each layer as soon as divided, so that it may later be promptly identified and firmly sutured.

The kidney is then exposed behind the peritoneum. If, for diagnostic or operative purposes, is is desired to approach the kidney from the peritoneal cavity, the peritoneum is incised along the anterior curved incision. This incision should be sutured before the pus, if present, is evacuated.

Thornton declares that the combined abdominal and lumbar incision is the very best procedure. Through the abdominal incision the hand is introduced, and each kidney is palpated to confirm the diagnosis as to the morbid condition of the one and the normal condition of the other. Should a calculus be felt it is held with the left hand, while the right hand is used to make an incision in the lumbar region down to the stones.

Henry Morris, in the discussion upon this method of operating, said that he thought one could palpate the kidney with more ease and precision through the lumbar incision than through the abdominal incision.

Marsh reports a case of suspected calculus in which he made a vertical lumbar incision, but failed to find the kidney. Subsequently the abdomen was opened in the middle line and the kidney was easily found. It was movable and atrophied, but no calculi could be felt. The kidney was then removed by the ordinary lumbar incision, and, on section, several small calculi were found in one of the calices.

Tait employs the lumbar incision, unless the kidney is sufficiently enlarged to be called a tumor, in which case he makes an abdominal incision over the most prominent part and in the most prominent axis of the tumor.

In cases of suspected renal calculus, after the kidney is exposed, if the finger fails to detect a stone, a needle may be passed into the kidney to sound for a stone in the pelvis. Several punctures should be made, if necessary, as there is little hemorrhage, and this is readily controlled by slight pressure.

The following is a good account of the ordinary operation of nephrolithotomy. It was performed by Gross on a man aged thirty-five years:

"The patient having been placed under the influence of ether, and resting on his right side with a pillow under the abdomen and loin, an incision four and a half inches long, and beginning at the edge of the erector spinæ muscle, was made parallel with the last rib, and three-quarters of an inch below it, and carried through the successive layers of muscles and aponeuroses, until the perirenal fatty tissue was reached. During this stage of the procedure two arteries in the latissimus dorsi and internal oblique muscles were secured with catgut ligatures. The circumrenal fat having next been torn through with forceps, the index finger, passed over the posterior surface of the kidney, came in contact with a hard substance at the site of the central infundibulum of the organ, which, on the insertion of a long needle, proved to be a stone. The overlying renal tissue was then scratched through with the finger-nail, and extraction attempted with a small lithotomy forceps. This failing, the anterior wall of the belly having been pressed backward by an assistant, the object was accomplished by the combined use of the finger and scoop, and the slight hemorrhage was arrested by pressure with a sponge wrung out of hot water. A drainage tube, with a lumen of nearly five-sixteenths of an inch in diameter, having been inserted close up to the opening in the kidney, the edges of the lumbar aponeurosis were approximated with buried catgut sutures, the divided muscles were united with two tiers of the same material, the deep fascia was secured with a single row, and the skin and superficial fascia were brought together with the continued silk suture. The objects in thus uniting the divided tissues were to facilitate rapid healing and guard against the occurrence of hernia of the descending colon. The outer dressings consisted of gauze and jute, secured in position by a broad roller. The strictest antiseptic precautions were observed throughout, the materials used for the sutures, ligatures and dressings having been prepared with the usual solution of corrosive sublimate, and the instruments having been thoroughly scrubbed and soaked in a three per cent. solution of carbolic acid."

The patient made a good recovery.

Shepherd, of Montreal, removed through a lumbar incision a calculus weighing four ounces and seven drachms, and measuring nine inches in circumference—the largest calculus ever removed through a lumbar incision. The patient lived three and one-half months after the operation.

Weir performed abdominal nephrectomy for adenoma of the kidney, and successfully removed the growth which weighed twenty-one ounces. The first diagnosis made was renal calculus, and a lumbar incision was made exposing the kidney. A needle failed to detect a calculus, and, as the kidney was too much enlarged to admit of a removal through a lumbar incision, nothing more was then done. Later an incision was made on the outer side of the left rectus muscle, about five inches long, and the abdomen opened. The intestines were pushed aside with large flat sponges, and the peritoneum covering the tumor incised on the inner side of the descending colon, and the kidney reached. A few minutes' dissection with the finger allowed the root of the kidney to be exposed, when this was easily surrounded with a heavy silk ligature by means of Mott's aneurism needle, and the vessels and ureter tied off *en masse;* a heavy clamp was then applied between the ligature and the kidney, and the latter cut away, and after some tedious tearing of cicatricial adhesions on its posterior surface resulting from the first incision, it was removed. The clamp was then found to have slipped, and allowed a vein which had entered the kidney above the ligature to bleed freely. This showed most happily the control the anterior incision gives in this respect. The bleeding vessel was distinctly seen, and in a moment controlled by a fresh clamp and ligated. Very little blood was lost, though, during the stripping process, which was conducted between the capsule and its fibro-adipose envelope for a short time, quite a smart oozing of venous blood took place. A long pair of dressing forceps was then forced from in front through the old cicatrized track to the loin, and a large sized rubber drain carried in from here to the cavity left by the extracted kidney. The divided and torn edges of the peritoneum, which had covered the kidney, were united by numerous Lembert sutures, thus inverting their edges, and after a final toilette of the peritoneal cavity, which was only in name, as nothing had entered it, it having been so thoroughly protected by the sponges, the parietal peritoneum was sewn together with catgut, and the abdominal wall closed by silver-wire sutures supplemented with additional cat gut ones. As some oozing of blood persisted from the drainage tube, several yards of sublimate and iodoform bandage were stuffed into the posterior cavity, and over all peat bags and other antiseptic dressings applied.

The patient recovered. This case is the fourth one on record of adenoma of the kidney.

Lucas reports the case of a married woman, aged thirty-seven, who had suffered some years from painful movable right kidney. He exposed the kidney by the lumbar incisions, and secured it to the lumbar aponeurosis by sutures. The pain was at once relieved and the patient made a good recovery. Other similar cases are reported.—*Analectic.*

LAPAROTOMY FOR GUNSHOT WOUNDS OF THE ABDOMEN.—One of the most remarkable revolutions of modern surgery has been that which has occurred in the treatment of penetrating gunshot wounds of the abdomen. Until very recently, a surgeon would have been considered foolhardy had he opened the abdomen for the purpose of searching for and repairing intestinal lesions. Now one who fails to perform laparotomy when there is a probability that the viscera have been injured or blood-vessels torn, by a shot or other penetrating wound, is considered reprehensible; and, without delay, in the near future, the surgeon who fails to offer his patient the chances afforded by an operation, will be held criminally responsible in the event of an unfavorable issue of the case. The statistics of the late civil war, as compiled by Otis, which demonstrated how almost uniformly fatal these injuries were, when treated expectantly; the vigorous writings of Marion Sims, and the experimental work upon animals, performed first by the elder Gross, and more recently by Parkes, of Chicago, have been potent factors in effecting this radical change in the treatment of these injuries. It only required the successful cases of Kocher and Bull, to prove convincingly that what was true as regards animals, also held good in the case of human beings.

At the opening session of the Surgical Section of the Ninth International Medical Congress, Dr. Charles T. Parkes, of Chicago, introduced this subject in an instructive paper. Up to the present time somewhat more than forty operations of gunshot wounds have been performed, with a success of about 30 per cent., which rate will undoubtedly increase as operators become more skilled and acquire more confidence in the procedure. In our issue of November 12, Dr. J. M. Fox, of Philadelphia, reports another recovery after abdominal section, and suturing of the intestinal lesions, which is believed to be the first successful operation of this nature which has been performed in this city. At the Congress in Washington, there was a considerable diversity of opinion in regard to certain points, but it was generally conceded that laparotomy was proper when there was a well-founded suspicion that the bullet had penetrated the peritoneal cavity. It can scarcely be doubted, however, that the number of successful cases treated expectantly has been underestimated, but we can not recommend this method of treatment except under exceptional circumstances.

There are some questions connected with this subject which have not received sufficient elucidation. Is it necessary to perform laparotomy in every case of penetrating abdominal wound? It is our opinion that all wounds of the abdominal parietes should be explored with a disinfected finger or probe, and if penetration has been effected, the wound should be enlarged, in order to determine whether lesions of any kind have been made. In stab wounds the lesion must be limited to the region of the wound, hence it is not necessary to perform median section, and make an extensive examination of the bowels; but in gunshot wounds, unless the bullet is of very small size, median section had best be performed.

Should laparotomy be performed for posterior and side wounds? The same rule applies as for wounds of the anterior abdominal wall; the wound should be explored with finger, probe, or by incision, and if it leads in to the peritoneal cavity, section in the linea alba should be made. Fortunately, wounds in the back and side, even when they do penetrate the solid or hollow viscera, are very much less fatal than those which enter from the front, owing doubtless to the better drainage, and to the fact that the peritoneum is absent from the posterior surfaces of some of the viscera.

We think that whilst there may be some difference of opinion in regard to the propriety of an operation in individual cases, there can be no dispute upon the propriety of operating in general when there is a probability of perforation of the intestines, or any of the other abdominal viscera. The fact appears to be well established that all penetrating wounds of the abdomen are less fatal when treated by operation than when left to the processes of nature.—*Med. News.*

THE EARLY RECOGNITION OF HIP-DISEASE.—The symptoms are as follows (not, however, in the order necessarily in which they present themselves):

1. Limp. It is perhaps neither severe nor constant, but more marked in the morning on rising and gradually wearing away during the day.

2. Pain. Sometimes slight and sometimes very severe. It is usually referred to the inner side of the knee; and is liable to exacerbations. Later on a paroxysm of pain occurring at night is symptomatic of bone lesion, and called the osteitic cry.

3. Altered position. Very early the limb is slightly flexed, a little later abducted and rotated outwards.

4. Loss of motion in the joint.

5. Wasting of the limb and flabbiness of the muscles. Flatness of the natis is not of much significance.

6. Swelling, when present, may be recognized in front of the capsule or behind the trochanter, or by a brawny thickening about the joint.

7. Sensitiveness of the joint.

Not all these symptoms may equally be present; one or more may be strongly marked and others in abeyance.—Prof. A. J. Steele, in *St. Louis Cour. Med.*

WOUNDS OF THE PALMAR ARCHES.—Thiriar, of Brussels, summarizes his views in a recent lecture, as follows: The safest and best plan is to ligature in the wound if possible; if not, above it. In recent cases it can usually be done in the wound. Where it is necessary to tie higher up, it is of no use to tie the ulnar and radial; and if the wound is not very recent, and there has been time for a considerable amount of collateral circulation to have developed, even the brachial must be tied above the profunda. It is necessary to remember that the axillary artery sometimes gives off two brachial branches as high as the axilla itself. M. Thiriar examined a large number of arms in the dead-house, and found this anomaly present in 12 per cent. of the cases. However, he has always succeeded in arresting hemorrhage in wounds of the palmar arches, even when the tissues were suppurating, by a modification of Sir J. Simpson's plan of acupressure. He uses needles curved to a semicircle, and, passing them under the artery, brings the edges of the wound together, and occludes the vessel by the application of a twisted suture, which there is no need to draw very tightly. He summarizes his advice thus: 1. Direct ligature. If impossible, 2. Twisted suture and acupressure. If unsuccessful, 3. Ligature of humeral in the middle, if the collateral circulation has not had time to develop; above the profunda, if it has. 4. Employment of compression, direct or indirect, forced flexion, forcipressure, styptics, etc., only as temporary expedients.—*Lancet.*

COCAINE AS AN ANESTHETIC.—A great deal of minor surgery can be done without any suffering of the patient by its use, a 4 per cent. solution being the strength generally employed. Inject in and around the part; allow five minutes before operating.

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MEDICINE.

TREATMENT OF THE FINAL STAGES OF PHTHISIS.—(Dr. J. H. Musser, in *Med. News.*)—For the relief of erythema from pressure and moisture, remove the cause if possible; apply astringent lotions and drying powders. The extract of hamamelis diluted, or the aqueous extract of the shops; borax and alcohol; the latter alone; sulphate of zinc, twenty grains to a pint of water; alum and water; carbolic acid (ten drops) in water (Oj); or alum and alcohol, carefully applied, is grateful and remedial. Starch, rye flour, fullers' earth, oxide of zinc, subnitrate of bismuth, iodoform, and starch, are drying powders, named in the order of cheapness, that are efficient. For painful erythemata, iodoform, oxide of zinc, and subnitrate of bismuth with starch in combination, answer well.

Iodoform	1 part.
Zinc	2 parts.
Bismuth	2 parts.
Starch	4 parts.

A saturated solution of iodoform in ether, applied every day, or every other day, seems to relieve pain and remove congestion. A mixture of iodoform and surgical collodion relieves pain quickly. One must not forget the conventional soap-plasters, while glycerine, applied frequently, is also of service. Ointments of iodoform, or of zinc, with the extract of opium or belladonna, are often necessary. For bed-sores, remove pressure, and apply, by dusting, iodoform, Peruvian bark, oxide of zinc, or subiodide of bismuth. Oakum saturated with balsam of Peru, is often excellent. Surgical principles will guide in the treatment of exceptional ulcers.

Edema of the legs is most frequently distressing; bandages and elevation of the limbs are required. The swollen legs are the seat of a very painful erythema; here again, sedatives, as laudanum and lead water, or hamamelis, are required. One of the easiest prepared and most soothing applications for any edematous erythema, is the so-called starch poultice—ordinary starch mixed with water to the consistency of thick cream, spread on linen and applied.

Apart from the usual pains in the thorax, the patient suffers from general aching and soreness, and from local areas of pain. Rubbing with stimulating applications, alcohol, soap liniment, arnica, chloroform liniment, or with dry heat or applying hot flannels, are necessary. Local pains may be relieved if in the course of the nerves, or in the extremities, or where undue pressure has been exerted, by cannabis indica; laudanum may also be used, but is inferior in value; lanoline is a good vehicle for any substance. Plasters are not generally pleasant; belladonna, opium and soap may be selected.

Chest pains are usually severe. Use dry heat, by means of hot cloths, hot plates, or hot-water bags, or sinapisms, or rubefacient liniments. Pain in the epigastrium and about the heart often occurs in the last week, and is most horrible; dry heat is the most serviceable of external applications. The pain appears to be due to tension on the adherent pleura, by collapsing or contracting cavities. The secret of success in the treatment of the general and local pains, is the ability to ring the changes on various articles; the wrought-up nervous system conjures up or intensifies pains, which require an agile mind to relieve.

For the dry, parched, or fevered lips, use cold cream; camphorated or benzoated oxide of zinc; camphor water and glycerine, with or without borax, or boracic acid; or even glycerine alone, may be used. An erythematous stomatitis is often present; demulcents are required. Decoctions of marsh-mallow, or gum arabic, are soothing; morphia, or the syrup of poppies in a demulcent, relieves the burning distress. The slippery elm bark of boyhood days, chewed, furnishes a soothing coating to the mucous membrane. The burning that attends erythemata may be relieved by allowing bits of borax to dissolve in the mouth, or by applying boracic acid locally. Ten grains of the latter to a half ounce each of water and camphor water are sufficient. Alkaline waters iced are grateful.

For ulcerative stomatitis and thrush, phenol sodique, Dobell's solution, and Listerine, either of them well diluted, are detergent, and often soothing. If the ulcers are few, iodoform in ether touched on them will quickly heal. Boracic acid and camphor water in distilled water is a cooling mouth wash; myrrh is commonly used by the laity. Alcohol in water can be used; a solution of the bichloride of mercury (1:1000) in iced water seems to be cleansing. Flatulency is a most distressing cause of suffering. External applications of heat, dry or moist, are required. The aromatic spirits of ammonia, spirits of chloroform, Hoffman's anodyne, brandy and lime-water, creasote and charcoal in pill, with or without pepsin, or a mixture of carbolic acid, tincture of cardamon, and bicarbonate of soda, with mint water, most frequently relieve it. The recent preparations of pepsin, and pancreatin, are of inestimable value. A bitter before eating, with or without an alkali, prevents a succeeding flatulency: either nux vomica, gentian, or quassia.

Vomiting arises from laryngeal irritation, from cough, from exhaustion, from local gastric irritation, by food undigested undergoing fermentation. Remove the laryngeal irritation by the local application of astringent and anodynes, by glycerite of tannin with or without morphia, or by astringent and anodyne lozenges. The vomiting of food by cough is prevented by administering morphia half an hour before meals, or by taking deodorized tincture of opium before the meal. The vomiting that occurs after rising is often prevented by taking some stimulant with nourishment, before assuming the erect posture; sherry and egg, or milk and brandy. The vomiting and retching that occur from excessive coughing is to be relieved by the anodyne that checks the cough ; the more simple the anodyne the better; minute doses of morphia, if not contra-indicated, are the best. The vomiting of exhaustion is controlled by stomachics, as quassia, or gentian in infusion; by stimulants, as champagne, brandy, and aromatic spirits of ammonia. Vomiting due to local irritation and congestion, caused by undigested and fermented food, is relieved by antifermentatives—carbolic acid, creasote; bismuth, and charcoal; by artificial aids to digestion, by the use of peptonized or pancreatized foods, by alkalies, as iced lime-water, or Vichy water, which act as local sedatives; by carbonic acid water, the effects of which are sedative. The stimulating effect of a sinapism, or the sedative effect of a blister, must be invoked by their respective indications. It must not be forgotten that lying on the right side increases the tendency to vomit, lying on the other side having an opposite effect.

Pain in the epigastrium, a most common symptom from flatulency, from an irritated congested stomach, from a diaphragmatic pleurisy, is to be met by treating the respective causes. A gastric sedative, as subnitrate of silver in pill before meals, with a minute dose of opium, prevents the pain that ensues after food.

Diarrhea, if colliquative, may be controlled by stimulants, as burnt brandy, ammonia, or camphor; if tubercular, by large doses of astringents. Bismuth, from thirty to sixty grains in each administration, has served the writer as well as any combination of drugs. Logwood is a most valuable astringent, the fluid extract being used most frequently.

Intestinal flatulency is often the cause of diarrhea, and can be prevented by salicylic acid, by antifermentatives, and by pancreatin. The diarrhea that follows immediately on taking food is treated by an opiate;

preferably deodorized tincture of opium in small doses, five to ten drops, or the powder, one-twelfth of a grain, with silver or bismuth, before meals. A septic diarrhea ensues also in this last stage, and is to be checked by salicylic acid, by naphtol, or other forms of the naphthaline series recently introduced into therapeutics. The diarrhea of amyloid diseases can only be controlled by opiates.

To relieve the cough of the last stage is most difficult. Dryness of the upper air-passages is most distressing, and local applications are generally painful. By the aid of a mirror, suitable remedies, always demulcent in character, can be applied to the congestive areas about the larynx and epiglottis. Glycerine applied with a brush relieves the dryness; Dobell's solution thus applied is of service. The applications must be made often to the dry areas. Listerine with glycerine is of much value. inhalations of terebinthinated vapors, or of simple aqueous vapors are most grateful. The simplest form of inhalation is the best. We frequently have generated the vapor in a sick cup, covering the top, and inhaling by the mouth-piece. The ineffectual efforts to cough can be aided by hot water, by hot water and brandy, and by the aromatic spirits of ammonia well diluted. Hydrocyanic acid has never been of any service in my hands for cough, while opiates are to be used with caution. A moderate dose of morphia may produce serious and even fatal symptoms. Codeia has disappointed the writer. Hyoscyamus and belladonna frequently add to the distress by producing dryness of the fauces; to relieve the dyspnea, our utmost efforts are in demand. Ammonia, alcohol, Hoffman's anodyne, and draughts of hot water are required in turn; external heat contributes to the relief. One of my professional friends says he has seen the air-hunger relieved by quebracho. Inhalations of oxygen should be theoretically of much service; the writer has never used them. The patient must be supplied with fresh, cool air, a source of relief to the distress. Attacks of dyspnea, of course, are increased by flatulency, and this complication must be removed.

Hemorrhage in the last stage is usually profuse. A knowledge of the pathological anatomy of the lung at once shows the futility of astringents. Rest and opiates are essential, stimulants may be required; ice or cold cloths over the chest are imperatively demanded if it persists.

Laryngeal and faucial tuberculosis increases the distress of the patient. As long as feasible, cocaine to render the taking of food possible must be applied to the ulcerated pharynx and larynx. Insufflations of morphia alone, or with iodoform and starch, must be practised, and over the larynx frequent fly blisters applied. One-eighth to one-quarter of a grain of morphia, with one grain of iodoform and three of starch, insufflated, or added to treacle and retained by the patient as long as possible in the larynx, gives much relief.

In the late stage of phthisis some means must be used, but not as imperatively as in the earliest stages, to combat fever. Quinine frequently aggravates nervousness, and is inadvisable. The salicylate of sodium, doses of five grains, guarded with a drachm of whisky, every three hours, is a reliable antipyretic. It is also of much service after the manner of administration by Jaccound. The general restlessness and nervousness which ensue at this period of phthisis must be prevented or allayed by quiet in the surroundings, by free access of pure air, by the administration of light liquid food only, and by the use of stimulating anodynes, preferably Hoffman's anodyne; for a similar purpose, valerian and asafetida, by the mouth or rectum, or, if practicable, musk can be used; they are of much value. Gentle frictions allay restlessness, while ministrations with soft voice and gentle action allay an easily perturbed, nervous system. By means akin to these, we can truly administer to the sufferings of our patients. It is quite certain, however, that the firm voice, the truthful countenance, the inspiring touch, sustain and soothe in this trying passage through the valley of the shadow of death.

IS TUBERCULOSIS INFECTIOUS.—By a number of carefully conducted experiments, M. Cadeac and M. Mullet have undertaken to determine if the air expired by patients suffering with pulmonary tuberculosis can produce the disease by inhalation or by inoculation. They publish an interesting account of their experiments in a recent number of the *Revue de Medicine*. The method which they adopted in the first series of experiments was as follows: A caoutchouc bag, having a capacity of from forty-five to fifty quarts, provided with a stop-cock, was partially filled by being breathed into by a patient in an advanced stage of phthisis. It was then filled to its utmost capacity with pure air, and in that way a vitiated atmosphere was created like that which is usually to be found in a phthisical patient's room. Rabbits, the susceptibility of which to tuberculosis is well known, were made to breathe in the air contained in the bag for an hour or two hours every day, by means of a certain muzzle, fashioned after a mouth-piece of Paul Bert's anesthesia inhaler. This was repeated for several days, and the three rabbits upon which the experiments had been performed were killed after the lapse of from twenty to forty days, and their organs examined. The results were entirely negative; all the viscera were found perfectly healthy. In another series of experiments, rabbits affected with catarrhal bronchitis were treated in the same way, but in them also the results were negative.

The objection might be raised that in these experiments the degree of infection of the mixed air was variable and the exposure too limited in duration. To exclude this source of fallacy, a third series of experiments was undertaken. A small box was divided into two compartments in such a way that animals put into the two compartments had to breathe the same air, but could not come into bodily contact. Rabbits in which artificial tuberculosis had been produced were put into one of the compartments, and guinea-pigs affected with induced bronchitis were placed in the other. Thus, for periods of two or three months, the non-tuberculous guinea-pigs had to inspire the emanations from nineteen tuberculous rabbits; yet not one of the guinea-pigs showed any signs of tuberculosis, either during its life or after being killed. In a fourth series of experiments, the vapor contained in the expired air of phthisical patients was condensed, and the resulting liquid was injected under the skin in rabbits, with antiseptic precautions. Twelve rabbits were thus treated, and the results were negative in all, with a single exception; in the rabbit that proved the exception, two gray granulations, of the size of a pin's head, were found in the left lung. Thirteen guinea-pigs were treated in the same way, and in none of them did infection take place.

The authors pushed their experiments still further. There were two wards in the hospital, one of which was 120 feet long, 24 feet wide, and 21 feet high, containing about forty consumptive patients, and the other was 105 feet long, 18 feet wide, and of the same height as the first, having about twenty-nine patients. The majority of the patients expectorated freely, and no precautions were taken with regard to the sputa. Several of the patients were in such an advanced stage of phthisis that they had to keep their beds constantly. Air collected from these wards, quite close to the beds occupied by patients, was subjected to condensation of its aqueous vapor, which was used in the same way as in one of the other series of experiments. Twelve guinea-pigs were employed in these experiments, and the results were negative in all but two of them. In one of these two, a few small gray granulations, containing tubercle bacilli, were found in one of the lungs; in the other, there were numerous foci of tubercular granulations in both lungs and in some of the glands of the body.

Although these experiments do not entirely disprove the infectiousness of tuberculosis, it must be said that they afford strong presumptive evidence of the innocuousness of the air expired by consumptive patients. The two instances of positive results obtained in the last series of experiments emphasize the necessity of disinfecting the sputa of phthisical patients, whether in a large hospital ward or in small apartments occupied by the sick and the healthy.—*N. Y. Med. Jour.*

MYTHOLOGY IN MEDICINE—There has been no such bar to real advance in medicine and in every other science as mythology. It is, in the sense Max Muller uses it, a disease of language, causing words, which were once only names and attributes, to assume a substantial existence; and, as Shelley says,

> Human pride
> Is skillful to invent most serious names
> To hide its ignorance.

It is inherent in man to seek to substantiate abstract ideas, and then, unfortunately, not content with this process of creation, he allows his doubts to be set at rest and his difficulties to be smoothed away by these creatures of his own production.

Mythology early debased theology, and formed out of the physical phenomena of daybreak, dawn, sunlight, etc., the host of deities worshipped in Greece and Rome. In the realm of science in our own days, chemists have been until comparatively recent times content to explain the phenomena of heat by such myths as "phlogiston" and "caloric." But medicine, of all the sciences, has suffered most from this disease. This is partly due to the fact that the monks and the schoolmen, the only practitioners of medicine in the Middle Ages, were thoroughly imbued with the spirit of mythology, which they had inherited from the Greek writers, from which so much of their learning was drawn.

What wonder, if disease was looked upon as an actual living entity by men who called others "heretics" for believing that such words as "justice" and "truth" were only conceptions of the mind, and not real things walking about in daylight? But another reason for mythological language flourishing in medicine so long was that medicine is essentially an inductive science, slowly built up by observing many facts through many ages, and at the same time is, in the eyes of the generalty, simply the healing art, while to its professors it is mainly the source of daily bread.

It was impossible to present the art before the people as less than perfect, and, while facts were accumulating with heart-breaking slowness, their places were supplied both for mediciners and medicined by mythical entities, which in their turn could be replaced by facts as these accumulated.

Even after the reformation, when inductive reasoning began to take the place of the learning of the schoolmen and the empiricism of authority, this latter necessity made mythological medicine die a very slow death. Of course, in the absence of the finer means of research, it was impossible to discover the nature of disease, but it would have been the first step to that discovery to have owned absolute ignorance. To even enlightened physicians like Sydenham, the bacterial theory of the origin of the plague was as unreachable as Newton's laws of gravitation were to Dr. Henry More. But though Sydenham could not reach the nature of the plague, it must have been merely the necessities of his art which made him speak of it as "a royal monarchical disease, which absorbed all others." A mythological method of speech which lingered among the physicians (as distinguished from the surgeons) in full force so late as the time of Dr. Lettsom, in whose life (vol. iii. p. 13) we read such lines as these quoted with approval by the editor:

> Disease raged wide, and Death with pallid face
> Stalked through the gloomy streets with rapid pace,
> Laughed physic to defiance, claimed his right,
> And o'er his victims triumphed in our sight.

As popular medicine in the present is ever the reflection of the accepted theories of the past, so the belief in specifics and advertised remedies to-day is the direct outcome of the mythology of the physicians of a past age, who looked upon disease as an entity, or, rather, as a series of entities to be driven out by certain remedies. Drugs, according to them, were capable of curing each a different complaint; they each gave attention (for that is the derivation of the verb "to cure") to a separate enemy, and hence we find the importance the older physicians attached to remedies, the little regard they paid to pathology and morbid anatomy. With them "symptoms" and "indications" were everything; "causes" little or nothing.

And so for the uneducated to-day, it is impossible to believe that disease is simply an altered condition of tissues or functions. To them it has an actual, active existence, and must always be preceded by the definite article. They never have bronchitis or rheumatism, or inflammation of a part—but always "the bronchitis," or "the rheumatics," or "the inflammation." If they have pain, they are delighted when its position shifts, for they hope "it" is moving out of their bodies; and their joy is great if they feel it pass into their fingers or toes, for it is then like George Herbert's "religion," standing "a-tiptoe on the strand, ready to pass" to some other region.

A poor person sees no difficulty in the promises of a quack to cure half a dozen different diseases with the same remedy, any more than he would see any difficulty in killing half a dozen foreigners of different nationality with the same sword. If the nostrum he patronizes fails to effect his deliverance, he takes another. He has only used the wrong weapon, that is all. But, cured or not, he never questions the existence of the foe, who stands gaunt and grim within his house of life. That may be invulnerable to the weapon used or in the part attacked; but he feels that with a better sword or a more swashing blow, he will finally be able to conquer his enemy.

Nor is this phase of belief confined to the lower orders; the clergy and the laity of the middle and upper classes are equally mythologists. Homeopathy is a striking instance of the truth of this statement. Great lawyers, wise statesmen, subtle theologians, accept the dogma of homeopathy as a scientific truth. Yet, after all, it is nothing more than a compound myth. "Like cures like, and that which in large doses produces a disease can cure it in small," when translated into English, means that the entity disease can be born from the entity drug—and that the latter, like Saturn, does under certain circumstances, devour its own children.

Unfortunately, moreover, mythological medicine may be found in places where it ought not to be; namely, between the boards of many a system of medicine accepted as an orthodox exposition of modern scientific knowledge. And it is difficult to object to Holloway Sanatoriums and Whelpton Churches, unless our own teachings be free from taint of mythology.

In the new addition, for instance, of Holmes's *System of Surgery*, one is sorry to find such a sentence as this: "It is possible the effect of parasiticism may be produced by an invisible agent, either introduced from without the body or formed within, acting on the cellular elements after the manner of a ferment. With this suggestion there is linked the further possibility that this agent may be associated with one or other of the minute organisms which have been of late the subject of so much attention." This is nearly as scientific and satisfactory as the pathology of tumors as known to our ancestors: "The second (cause) is either when the natural heat of the part being diminished, the good humours are ill concocted, or the vicious are not sufficiently evacuated....the material cause are the humours." It is difficult to decide if the "humours" of the chirurgeon of 1698 or the "invisible agent" of the surgeon of 1887 is the more mythological and unsubstantial. Then, again, in Professor Aitken's *Practice of Medicine* one reads (vol. i, p. 371, 6th edit.) of "pandemic waves of epidemic diseases," and we are gravely told that the propounding of this theory is calculated to do good by drawing attention to the subject! Surely it would do more good to propound no theory, but by patient observation of facts gradually arrive at the truth, rather than by inventing such a myth as "pandemic influences," to satisfy the difficulties of men who might else become patient and intelligent inquirers.

It was only the other week that the medical officer of health of a town, where an extensive outbreak of enteric fever had taken place, was asked if it was not due to pollution of the reservoirs of the place; he at once replied that he attributed the appearance and spread of the disease to "epidemic influences." This was the name of the myth he had adopted as satisfactory, to silence the doubts in his own mind and those of others.

For the abiding evil of mythology is, as Max Muller tells us, "that language assumes an independent power, and reacts on the mind instead of being, as it was intended to be, the mere realization and outward embodiment of the mind." In other words, instead of the word used being a symbol of the thing signified, it rather represents something not there at all, and, like the scarecrow in the field, keeps us, silly crows, as we are, from the wheat we so much need.—*Brit. Med. Jour.*

LAFAYETTE MIXTURE.—A modification of the mixture of copaiba, liquor potassæ, sweet spirits of nitre, and mucilage of gum arabic, known as the Lafayette mixture, was proposed by Bumstead, and is now generally employed in place of the original:

℞.	Copaibæ	
	Spirit. etheris nitrosi, aa	f ℥ j.
	Liquor potassæ	f ʒ ij.
	Extract. glycyrrhizæ	℥ ss.
M.	et adde	
	Ol. gaultheriæ	gtt. xvj.
	Syrup. acaciæ	f ℥ vj. M.

Dose—a teaspoonful after meals.

CRAB-LICE (pediculi pubis) are said to be immediately destroyed by washing the parts with ether.

DYSPEPSIA.—*Loss of Appetite.*—When this exists there is generally more or less atony of the gastric mucous membrane, in which condition the vegetable bitters are useful: ℞. Pulv. cascarillæ, ʒ j; pulv. rad. rhei., gr. xv; pulv. columbæ, ʒ ss. M. ft. pil. No. L. Sig.—Five three times a day. (Ewald.)

Not infrequently an aromatic is happily combined with the bitter, inasmuch as it is more stimulating, though also more evanescent in its action: ℞. Tinct. cinnam., *m* xxxvi; pulv. rad. columbæ, gr. cviij. M. Div. in pulv. No. xii. (Ewald.)

Sometimes it is best to guard against the irritant properties of bitter drugs. This may be done by combining a small quantity of morphia with the prescription. The following formula is also useful when loss of appetite is combined with a tendency to cramps: ℞. Morph. acetat., gr. iss; tr. gentianæ, tr. columbæ, tr. quassiæ, tr. cort. querc., a a f ʒ vj. M. Sig.—Teaspoonful several times a day. (Graves.)

Excessive Acidity.—This may be relieved by acids before meals or alkalies after meals (Ringer). The following formula will be found of service: ℞. Potassi bicarb,, gr. xc; cort. aurantii, gr. xlv. M. Div. in pulv. No. x. Take one powder in sweetened water three times a day.

℞. Sodii nitratis, ʒ ij; bismuthi subnit, gr. xv; gummatis arab. ℥ ss; aq. destil, f ℥ vij. ʒ vij. M. Sig.—Teaspoonful every four hours. (Ewald.)

If constipation also exists, the following may be used: ℞. Inf. rad. rhei, f ℥ iss. In this cold dissolve: Sodii bicarb, gr. cl; syr. aurantii cort., f ʒ vj. M. Teaspoonful twice daily. (Ewald.)

Or: ℞. Calcii carb. precip, gr. cxxxv; magnesii carb, gr. xc; sem. myristicæ pulv., gr. vij; sacch. alb, ʒ iss; gummatis arab, gr. xlv; aq. destil., q. s. Fiant trochees No. xx. Part of one may be taken several times a day. (Ewald.)

Or: ℞. Inf. rad. rhei, f ℥ iv–f ʒ vss; sodii bicarb., gr. lxxv; ol. menth pip. *m* iv; syr. aurantii cort., f ʒ vj. M. Sig.—Tablespoonful every two hours when there is gastric and intestinal catarrh. (Ewald.)

Flatulence.—When this is due to fermentation, creosote and carbolic acid are useful: ℞. Creosoti, gr. iij; aq. flor. aurant., f ℥ j–f ʒ vij; tr. ferri chl., etheris, syr. aurantii cort., a a f ʒ ss. M. Sig.—Teaspoonful every two hours. (Ewald.)

℞. Acid carbol., gr. xv; pulv. rad. rhei, gr. lxxv; mucil. gummatis arab. q. s. M. Div. in pil. No. L. Sig.—One three times a day. (Ewald.)

When flatulence is the result of insufficient gastric juice: ℞. Acid hydrochlor., *m* lxxv; aq. menth. pip. f ℥ iss–f ʒ ss; syr. aurant. cort., f ʒ vj. M. Sig.—One-half teaspoonful in water after each meal.

℞. Acid. hydrochlor., f ʒ v; aq. destil, syr. zingib. aa, f ℥ ss. M. Sig.—Ten drops in water after meals. (Ewald.)

Charcoal is often valuable in flatulence associated with acidity. R. Pulv. carb. lig., ʒ vj; lig. quassiæ, magnesia carb., aá ʒ j. M. Teaspoonful several times daily. (Ewald.)

℞. Pulv. carb. lig., sodii bicarb., oleosacch. menth. pip., aa gr. viiss. M. Ft. pulv. Take one-half one hour after every meal. (Ewald.)

℞. Pulv. carb. lig., gr. vi; acid salicyl., gr. iss. Put in capsules No. x. Take one-half hour after meals. (Ewald.)

Slowness of Digestion.—In a large number of cases of dyspepsia, food, after entering the stomach, seems to the patient to lie there like a dead weight. Sometimes after remaining a while in the stomach it is regurgitated in a nearly unaltered condition; or, in other cases, digestion proceeds so slowly that gases form, resulting in flatulence, eructations and colicky pains. It is in these cases that pepsin and, if the dyspepsia be intestinal, pancreatin, are of great value. A number of useful formulæ will be here appended: ℞. Pepsin. sacch., gr. lxxv; strychninæ, gr. 1–13; sacch. lactis, gr. cl. M. Div. in pulv. No. x. Sig.—No. 1.

℞. Acid. hydrochlor. *m* cl; aquæ menth pip., aquæ destil, aa f ℥ j. f ʒ ivss. M. Sig.—No. ii. Dissolve one of the powders in a glass of water and place in it a teaspoonful of No. ii. To be taken 1/4 hour after meals. (Ewald.)

℞. Pepsin, gr. xxx; acid. salicyl, gr. viiss; glycerini, f ℥ j. f ʒ ivss; tinct. calami, *m* cl. Sig.—Teaspoonful dose. (Ewald.)

℞. Pepsin, gr. cl; pancreatin, gr. cxiv; sacch. lactis, ℥ j ʒ ivss; ext. malti, gr. lxxv; acid. lacti, gr. xxxviij; acid. hydrochlor. dil. *m* cl; glycerini, ʒ v; tragacanth, q. s. M. Div. in ten pill masses. (Lacto-pepsin.) (Ewald.)

℞. Pepsin, gr. lxxv; acid. hydrochlor., *m* viiss. Rub together exactly; ext. gentianæ, q. s. M. Ft. pil. No. L. One pill several times a day. (Ewald.)

℞. Pepsin, gr. xxxviij; acid lactic, gr. iij; amyli, gr. xl. M. Ft. pul. No. v. To be taken an hour after meals when there is too little acid in the stomach. (Corvisart.)

℞. Pepsin, gr. lxxv; morph. hydrochlor., gr. 1–6; amyli, gr. xc.

M. Div. in pulv. No. xv. In increased irritability of the gastric mucous membrane. (Corvisart.)

The following formula is also useful, though without pepsin, in the so-called atonic dyspepsias: ℞. Inf. rad. rhei, f ℥ iv–f ʒ vss; elixir aurantii, *m* lxxv; syrupi, *m* iv; sp. eth. nit., *m* viiss. M. Sig.—Tablespoonful every half hour. (Ewald.)—*Med. and Surg. Reporter.*

DIETARY OF CHRONIC TUBERCULOSIS.—Uffelmann recommends several bills of fare which will serve as a guide in most of the cases.

For a consumptive who can bear only a small quantity of consistent food, he gives:

I. *Morning*—7 o'clock.—Milk, eight ounces, teaspoonful of cognac with toast bread, two ounces.

8 o'clock.—1 cup of cocoa, boiled with milk, 6 ounces.

10 o'clock.—Milk and cognac as at 7 o'clock.

Noon.—1 cup of beef broth with yolk of an egg, 5 ounces of milk and rice, 1 glass of red wine.

Afternoon—4 o'clock.—Sweetened coffee with milk, 5 ounces, and 2 ounces toast bread.

6 o'clock.—1 glass of milk and cognac as above.

Evening—8 o'clock.—1 plate (10 ounces) milk soup, with two ounces toast bread.

Night.—1 glass of milk, 6 ounces.

II. *Morning*— 7 o'clock.— 1 glass milk with cognac and 2 ounces toast bread.

8 o'clock.—1 cup sweet coffee with milk, 6 ounces.

10 o'clock.—1 cup beef broth with yolk of an egg.

Noon.— 1 plate wine sago soup, mashed potatoes, 2½ ounces scraped raw ham, prune sauce.

Afternoon—4 o'clock.—1 cup coffee with milk, 2 ounces toast bread and butter.

6 o'clock.—1 glass of milk with brandy.

Evening—8 o'clock.—1 plate malto-leguminous soup with meat extract, bread with butter, 2 ounces scraped ham.

Nutritive value (1 and 2)—92–105 grams albumen. 85–94 grams fat. 220–250 carbohydrates.

III. Bill of fare for chronic febrile consumptive who was free from dyspepsia and gradually gained in weight.

Morning—7 o'clock.—6 to 7 ounces milk, 2 ounces of toast.

10 o'clock.—1 cup of beef broth with yolk of egg, 2 ounces wheat bread and butter, 1 ounce scraped ham, 2 ounces roasted chicken.

Noon.—1 glass of milk.

Afternoon—1:30 o'clock.—1 plate of soup (wine, beef, or noodle), roasted meat, 4 ounces, with rice or mashed potatoes, or green vegetables, 1½ ounce toast bread with cheese or ripe fruit, 1 glass red wine.

5 o'clock.—Milk soup with wheat flour or rice, or oatmeal, or weak tea with plenty of milk, with 3 ounces wheat bread and butter, 2 ounces cold veal roast, or in the place of latter 1 ounce of cheese or smoked beef tongue.

Night.—1 small cup of milk.

Nutritive value about 121 grams albumen, 86 grams fat, 350 grams carbohydrates.—*Jour. of Dietetics.*

METHODS OF TREATMENT OF PROSTATITIS, WITH ESPECIAL REFERENCE TO HYPERTROPHY OF THE PROSTATE.—Among the different forms of prostatitis, Dr. Fischer, of Munich (*Centralblatt fur Chirurgie*), distinguishes that of youth, in which the genitals are over-used (*i. e.*, misused) from that of older individuals. The first always appears as an acute affection, and at times violent in its onset, with high fever, rigors, and even sopor, until the abscess in the urethra bursts, either spontaneously or from attempts at catheterization. Its cyclical course lasts about eight days, and repeats itself after a time. Often for many years one attack follows another in the same way, and finally ends in a cure. Occasionally, however, it passes into a chronic inflammation, with hypertrophy. The more chronic form in older people begins usually with catarrh of the gland, prostaterrhea, and leads slowly to hypertrophy. According to Nussbaum, it is very characteristic of the affection that when the catheter cannot be used, the bladder may only be emptied when the body is placed in a peculiar position, and indeed the position of the body which renders this possible, does not remain the same, but must be changed from time to time to effect the same result. We pass over here the well known resulting conditions, and point out only the not infrequent occurrence of abscesses. During the treatment of prostatitis in its acute stage, after the regular course of treatment and along with the ordinary after treatment with iodine and bromine mineral waters, Nussbaum has used the cold, ascending douche with great success; a treatment which, in chronic prostatitis and hypertrophy of the prostate, even in cases of long standing, is followed by the best results. Occasionally among the better class of patients, this treatment may be advantageously combined with brine and sea baths, either as full or sitz baths. He disapproves of all methods of treatment which have for their object the forcible dilatation of the narrowed portion of the urethra or the destruction of the gland, as well as all operations for extirpating the prostate through the rectum. Bottini's galvano-caustic treatment is, on the other hand, approved by Nussbaum, although the difficulties of the operation do not favor its employment. Notwithstanding the untoward results of parenchymatous iodine injections, Iverson's subcutaneous injections of ergotine are thought to deserve careful attention. It is not advised to make an opening of a prostatic abscess from the urthra because of the danger of making a false passage in catheterizing. The incision through the rectum or the perineum deserves also the preference over puncture with a trocar. Maas's recommendation to divide the sphincter ani in severe cases, is worthy of attention because of the opportunity thus given of applying antiseptic washes.

When there is retention of urine in consequence of hypertrophy of the prostate and the various methods of catheterization have been tried without success, the author recommends, according to Nussbaum's method, the puncture above the symphisis pubis, with the subsequent introduction of a Nelaton's catheter, and with antiseptic washing out in preference to the puncture for aspiration, in which latter washing out is not possible—a very important procedure, and one which ought frequently to be done. According to the author's observations, he has often succeeded, directly after the first operation, in introducing the catheter through the urethra; when, after the cure of the cystitis and the removal of the resulting inflammatory products, the prostate rapidly decreases in size, and the fistule are also soon cured.—*Journal of Cutaneous and Genito-urinary Diseases.*

REMEDY FOR NEURALGIA.—(Dr. John T. Metcalf, in *Boston Med. and Surg. Jour.*)—The following formula was learned from a patient sent to Cuba, with the hope that a change of climate would afford relief from sciatica. A French physician, who there attended him, used this remedy with the best results: Equal parts of the tinctures of aconite root, colchicum seeds, belladonna, and actea racemosa. Six drops to be taken every six hours till relief is felt. "As an internal remedy it is worth all others put together, of which I have knowledge."

TREATMENT OF EPISTAXIS.—The hemorrhage in the vast majority of cases proceeds from the septum, which is supplied by a branch of the facial. It enters the opening of the nose just below the alæ nasi, crossing the superior maxillary bone at that point.

In a practice of nearly thirty years, I have had many cases of epistaxis, and have never in a single case failed to arrest the bleeding by compression of the aforesaid artery, with the finger applied over its track, making firm pressure against the bone.—*J. Robinson, M. D., in Therap. Gazette.*

THE largely advertised proprietary article, known as the Ely's Cream Balm, consists of vaseline, 1 once; thymol, 3 grains; carb. bismuth, 15 grains; oil wintergreen, 2 minims. The directions are to dip the little finger into the balm and insert up the nostrils, giving two or three full inhalations.—*Med. Record.*

Prof. Parvin treated a case of *umbilical hernia* in an infant by reducing the hernia, pinching the skin together and painting with collodion, and ordered the painting to be repeated three times a week; the truss that the child had been wearing acted as an irritant and had to be changed every few weeks.—*Col. and Clin. Record.*

CURE FOR EXOPHTHALMIC DISFIGUREMENT.—Dr. Levis and Dr. Roberts have frequently relieved the disfigurement due to the bulging forward of eyes previously operated upon for strabismus, by denuding the edges of the lids at the outer canthus and stitching them together. This narrowing of the ocular orifice corrects the unseemly protrusion of the globe. It is also applicable in exophthalmic goitre, or Graves' disease, after the ocular protrusion has been relieved as much as is possible by medical means.—*Polyclinic.*

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Glycerini, ℥ ij
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Irritation of the Bladder.

℞ Tinct. Gelsemium,
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EDITORIAL DEPARTMENT.

J. F. BALDWIN, M. D., Columbus, - - - - EDITOR.

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PRELIMINARY PROGRAM OF THE FIFTH ANNUAL MEETING OF THE OHIO STATE SANITARY ASSOCIATION,

To be held in the G. A. R. Hall, Corner Adams and Ontario Streets, Toledo, Ohio, February 9th and 10th, 1888.

THURSDAY, FEBRUARY 9TH, 1888.

FIRST SESSION 9:00 A. M., STANDARD TIME.

"*Sanitation in Architecture.*"—D. L. Stine, Esq., Architect, Toledo. Discussion opened by Mr. Francis C. Bodine, Architect, Mansfield; Dr. E. R. Eggleston, Mt. Vernon; Dr. A. E. Evans, Columbus; I. N. Huntsberger, Attorney-at-Law, Toledo.

"*Cremation as a Sanitary and Economic Measure.*"—Lew Slusser, M. D., Canton. Discussion opened by Dr. S. H. Smith, Warren; Dr. A. W. Hopkins, Health Officer, Ashtabula; Dr. E. Westlake, Health Officer, Gallipolis; Dr. A. T. Quinn, Wilmington.

"*Childrens' Homes and Orphan Asylums.*"—F. H. Darby, M. D., Secretary Board of Charitable and Correctional Institutions, Morrow. Discussion opened by Dr. A. G. Byers, member State Board of Charities, Columbus; Hon. M. J. Cooney, Toledo; Gen. R. Brinkerhoff, member State Board of Charities, Mansfield.

"*Hygiene of the School Room.*"—Dr. F. C. Larimore, member Board of Education, Mt. Vernon. Discussion opened by Dr. T. Clark Miller, Health Officer, Massillon; Dr. L. G. Thacker, Defiance; Dr. J. C. Fahnstock, Piqua.

"*Effects of the Present Educational Methods on the Health of Women.*"—C. A. Lee Reed, M. D., Professor of Diseases of Women, Cincinnati College of Medicine and Surgery, Hamilton. Discussion opened by Prof. E. T. Nelson, Ph.D., Delaware; Dr. W. J. Conklin, Dayton; Dr. C. H. Reed, Professor of Obstetrics, Northwestern Ohio Medical College, Toledo.

SECOND SESSION 1 : 00 P. M., STANDARD TIME.

"*The Necessity of Uniform Means of Reporting to Health Departments.*"—W. J. Scott, M. D., Professor of Clinical Medicine, Cleveland. Discussion opened by Dr. Byron Stanton, Health Officer, Cincinnati; Dr. J. M. Weaver, Health Officer, Dayton; Dr. F. Gunsaulus, Health Officer, Columbus; Dr. G. A. Collamore, Health Officer, Toledo.

"*Village Boards of Health.*"—Austin Hutt, M. D., Waverly. Discussion opened by Dr. W. S. Jones, Waverly; Dr. J. W. Cooper, Bellaire; Dr. C. C. Fulton, Health Officer, Portsmouth; Dr. W. L. Buechner, Youngstown.

"*Boards of Health and their Relation and Duties to the Public.*"—J. A. Martin, M. D., Findlay. Discussion opened by Dr. Anson Hurd, Findlay; Dr. H. J. Sharp, member State Board of Health, London; Dr. George L. Hoege, Fostoria.

"*The Duty of the Public to Sanitary Science.*"—G. A. Collamore, M. D., Health Officer, Toledo. Discussion opened by Prof. John Simpson, Superintendent of Schools, Mansfield; Dr. D. R. Silver, member Board of Health, Sidney; Dr. H. L. Wenner, Tiffin; Dr. F. W. Brayton, Carey.

"*House Drainage and Sewer Connections.*"—Wm. Owens, M. D., Cincinnati. Discussion opened by Dr. A. A. Elliott, Health Officer, Steubenville; Dr. H. E. Beebe, Sidney; Thos. McNeal, Esq., Master Plumber, Cincinnati; Wm. Halley, Esq., Master Plumber, Columbus.

"*The Ventilation of Sewers.*"—John McCurdy, M. D., member Board of Health, Youngstown. Discussion opened by Dr. H. J. Herrick, Surgeon General of Ohio, Cleveland; Fred G. Halley, Esq., Master Plumber, Columbus; A. G. Daykin, Esq., Master Plumber, Cleveland; James Semple, Esq., Master Plumber, Cincinnati.

THIRD SESSION 7:00 P. M., STANDARD TIME.

To be held in Memorial Hall.

Address of Welcome.—His Honor, J. Kent Hamilton, Mayor of Toledo.

Response to the Address of Welcome.—Prof. Edward Orton, State Geologist, Columbus.

President's Annual Address—"*The Duty of the Hour.*"—E. T. Nelson, Ph.D., Professor of Physiology and Geology, Ohio Wesleyan University, Delaware.

Election of Officers.

FRIDAY, FEBRUARY 10TH.

FOURTH SESSION 9:00 A. M., STANDARD TIME.

"*The Heating and Ventilation of Passenger Coaches.*—R. Harvey Reed, M. D., Mansfield. Discussion opened by Prof. Curtis C. Howard, M.Sc., Columbus; Prof. W. J. Scott, M. D., Cleveland; Prof. J. Ernst Hacke, M. D., Toledo.

"*On some Points in the Examination of Air.*"—Curtis C. Howard, M.Sc., Professor of Chemistry Starling Medical College, Columbus. Discussion opened by Dr. E. W. Morley, A. M., Ph.D., Professor of Chemistry University Western Reserve, Cleveland; Dr. F. W. Blake, A. M., Professor of Chemistry Columbus Medical College, Columbus; William Dickore, A. M., Ph.D., Professor of Chemistry and Toxicology, Cincinnati College of Medicine and Surgery, Cincinnati.

"*Pure Air Within Doors and How to Obtain It.*"—Prof. P. W. Search, Superintendent of Schools, Sidney. Discussion opened by Dr. W. J. Scott, member Board of Health, Cleveland; Dr. C. E. Kurz, Bellaire; Dr. John T. Stutphen, Health Officer, Middletown; Dr. H. Hendrixson, Columbus.

"*How Far has the Science of Ventilation Advanced?*"—Isaac D. Smead, Esq., Toledo. Discussion opened by Dr. D. R. Silver, member Board of Health, Sidney; Dr. C. L. Van Pelt, Professor of Hygiene and State Medicine, Northwestern Ohio Medical College, Toledo; Dr. D. H. Beckwith, member State Board of Health, Cleveland; Dr. T. Clark Miller, Health Officer, Massillon.

After the reading of Mr. Smead's paper the Association will adjourn to visit a school building demonstrating the paper.

one thousand and five wood-cuts. Philadelphia: Lea Brothers & Co., 1887. Large 8 vo.; pp. 887; leather, $5.

Since the first publication of this work, in 1879, there have appeared eight issues, each of which has been called an edition, though containing no changes or additions. The present volume is, therefore, the second, and only revised, edition. It requires but a moment's consideration to appreciate how great a task is imposed by such a revision. The last half decade has been prolific in surgical achievements and triumphs—some of which may, however, be ultimately ranked among "surgical atrocities"—which make heavy demands on the judgment of the reviser and on the space at his disposal.

The learned author of the work now under consideration has succeeded in effecting a most satisfactory revision. Antiseptic surgery is given, to its minutest details; abdominal surgery and intracranial surgery, two comparatively new fields, are fully discussed, while none of the minor operations and methods seem to have been omitted. The work is doubtless the most complete, as it is also the most recent, of any on simply operative surgery.

Gynecological Diagnosis, General Gynecological Therapeusis. By R. Chrobak, M. D., Professor of Gynecology at the University of Vienna. Electricity in Gynecology and Obstetrics. By Egbert H. Grandin, M. D., Obstetric Surgeon to the New York Maternity Hospital. With one hundred and sixty fine wood engravings. Pages 390.

Diseases of the Ovaries. By Dr. A. Olshausen, Professor of Obstetrics and Gynecology at the University of Halle. Thirty-six fine wood engravings. Pages, 414.

Sterility. Developmental Anomalies of the Uterus, by P. Muller, M. D., Professor of Obstetrics and Gynecology at the University of Berne; and The Menopause, by E. Borner, M. D., Professor of Obstetrics and Gynecology at the University of Graz. Fifty fine wood engravings. Pages, 383.

Diseases of the Tubes, Ligaments, Pelvic Peritoneum and Pelvic Cellular Tissue; Extra-Uterine Pregnancy, by L. Bandl, M. D., Professor of Obstetrics and Gynecology at the University of Prague. Diseases of the External Female Genitals; Lacerations of the Perineum, by P. Zweifel, M. D., Professor of Obstetrics and Gynecology at the University of Erlangen. With one chromo-lithograph and eighty-eight fine wood engravings. Pages, 366.

These are volumes five, eight, eleven and twelve of the Cyclopedia of Obstetrics and Gynecology, published by William Wood & Co., and constituting Wood's Library for 1887.

We have, on previous occasions, noted the appearance of the preceding volumes of this most valuable series. The volumes before us complete the set, which, as a whole, is a treasure in the library of its every possessor. The publishers have spared neither pains nor money to present the subjects in the best possible shape, as evidenced by the profusion of illustrations. The Cyclopedia will long serve as a store-house for study and reference.

Manual of the Health Laws of the State of Ohio, compiled by the State Board of Health; 1887.

This is designed for the use of the local Health Boards, and contains all the statutes relating to the Public Health, and the decisions of the Supreme Court in reference to the same subject.

Diseases of the Joints. By Howard Marsh, F. R. C. S., Senior Assistant Surgeon to, and Lecturer on Anatomy at, St. Bartholomew's Hospital; Surgeon to the Hospital for Sick Children, and to the Alexandra Hospital for Hip Diseases. With sixty-four illustrations and a colored plate. Philadelphia: Lee Brothers & Co., 1887. Columbus: George H. Twiss. Cloth; 12 mo.; pp. 453; $2.

This volume belongs to the excellent series of "Clinical Manuals" for practitioners and students of medicine.

The author has had unusual opportunities for the special study of joint diseases, and he has succeeded in putting the knowledge thus acquired into excellent shape for his readers. The pathology of the various diseases is given in as condensed a form as possible, in order to save space for the matters of more immediate importance. In working up this part of his subject, he has received the assistance of Mr. Bowlby, the Pathologist to St. Bartholomew's Hospital.

Druitt's Surgeon's Vade Mecum. A Manual of Modern Surgery. Edited by Stanley Boyd, M. B., B. S. Lond., F. R. C. S. Eng., Assistant Surgeon and Pathologist to the Charing Cross Hospital, and Surgeon to the Paddington Green Hospital for Children; late Demonstrator of Anatomy in University College, and Surgical Registrar in University College Hospital. Twelfth edition. With three hundred and seventy-three engravings. Philadelphia: Lea Brothers & Co., 1887.

Few medical works have been so widely used as Druitt's Surgery. In England fifty thousand copies have been sold, while in this country, in the war of the Rebellion, each surgeon was furnished a copy of it by the Government. In the present edition very many changes and additions have been made, in order to bring the work abreast of the times. These changes and additions have necessitated considerable increase in the size of the volume, and their nature, and the necessity for them, will be understood when it is stated that the preceding edition appeared ten years ago.

The chapter on Diseases of the Eye has been replaced by one on the injuries of that organ. Greater prominence is given to pathology, and short sections are found on "Surgical Diagnosis" and "General Principles." Many of the old illustrations are replaced by new and larger ones, and a copious index is added.

The work is an excellent text-book, a book of reference, but a practical guide.

A Reference Handbook of the Medical Sciences, Embracing the Entire Range of Scientific and Practical Medicine and Allied Science. By Various Writers. Illustrated by chromo-lithographs and fine wood engravings. Edited by Albert H. Buck, M. D., New York. Volume V. New York: William Wood & Co. 1887.

We have noticed the preceding volumes of this cyclopedia as they have appeared, and can now add nothing to what we have before said as to the enterprise which inaugurated this work, or to the skill and patience which have characterized its continuance. This volume commences with *Miliaria* and closes with *Pott's Disease.* Among its longest articles may be mentioned those on Muscles, Myopia, Neck, Necrosis, Nerves, Nomenclature, Nose, Ophthalmoscope, Optometry, Orthopedic Surgery, Ovaries, Pancreas, Plastic Surgery, Pneumonia, Poisons, Pott's Disease. The article on Nomenclature contains brief definitions of upwards of five hundred diseases, operations, symptoms, methods, etc., named after those who first described or invented them.

HANDBOOK OF TREATMENT.—Arranged as an alphabetical index of diseases, to facilitate reference, and containing nearly one thousand formulæ. By William Aitken, M. D. (Edinburgh), F. R. S. Edited, with Notes and Additions, by A. D. Rockwell, A. M., M. D., late Electro-Therapeutist to the New York State Woman's Hospital. In one large octavo volume, 444 pages, handsomely bound. Price, $2.75. E. B. Treat, publisher, 771 Broadway, New York.

This book, which is at once concise and comprehensive, is arranged so that the practitioner, given a disease to treat, may have before him in a nutshell the latest treatment recommended by the best authorities. It is composed of the chapters on *Treatment* composed from the seventh (latest) edition of Dr. Aitkin's classical work on the Science and Practice of Medicine, which chapters have been revised and rearranged by Dr. Aitken, so as to make them more available for reference. The work not only embraces the experience of its distinguished author, but also that of many widely known authorities. As the *Medical Age* says: "The characteristics of the book before us are its conciseness and its comprehensiveness. It aims to be thoroughly practical, and to this end devotes the smallest possible space to definitions of the diseases which it discusses, and the largest possible space to the treatment."

The Medical World Visiting List, being a daily record of practice and accounts, without the use of signs, and hence needs no transferring; arranged in removable tablets. The *Medical World*, 1,520 Chestnut street, Philadelphia: Price, $1.50.

This is a very convenient little pocket record, and has the additional value besides its compactness, portability, durability and convenience, that of being a legal record in courts of law in States where the marks of the ordinary visiting lists will not be accepted in evidence. For country practice especially will it be found convenient.

SIX HUNDRED MEDICAL DONT'S: or The Physician's Utility Enhanced.—By Fred C. Valentine, M. D., Ex-Surgeon-General, Army of Honduras; Member of the Medical Society of the County of New York, etc. New York: G. W. Dillingham. Price 75 cents.

This is a valuable little book, tersely telling of many things done through ignorance and inattention, giving much information that may be imparted to laymen, and that will inure to the benefit of the doctor. We will say amen to most of the "dont's," but cannot to all.

Text-Book of Materia Medica and Therapeutics. Intended for the use of Students and Practitioners. By Robert T. Edes, A. B., M. D., formerly P. A. Surgeon U. S. Navy; Professor of Materia Medica, and Jackson Professor of Clinical Medicine in Harvard University, etc. 8vo., pp. 552; cloth, $3.50; leather, $4.50. Lea Brothers & Co., Philadelphia. 1887.

This work presents such a concise, practical, working view of the present state of Pharmacology and Therapeutics, as will save a learner much unnecessary labor and inculcate no cherished theoretical views. It considers the articles of the Materia Medica in classes which are arranged to include their general characteristics. It also includes many new but meritorious remedies and preparations, up to quite a recent period.

The style of the author is clear and forcible, and he is judicious in selecting the information he presents. The work is of such a character and tone that we can recommend it as a work likely to prove generally satisfactory.

Operative Surgery of the Cadaver. By Jasper Jewett Garmany, A. M., M. D., F. R. C. S., Attending Surgeon to Out-door Poor Dispensary of Bellevue Hospital; Visiting Surgeon to Ninety-ninth Street Reception Hospital, etc. New York: D. Appleton & Co. 1887. Columbus: Geo. H. Twiss. Cloth; 8vo; pp. 150; price, $2.

The title fully indicates the scope of this work, which will be found of value to teachers of surgical anatomy, and to students taking operative courses. We hope that the author will, in subsequent editions, introduce a number of illustrations, which would add materially to the value and attractiveness of the book.

Massage. Principles and Practice of Remedial Treatment by Imparted Motion. Mechanical Processes. By George H. Taylor, M. D., Author of "Health by Exercise," "Health for Women," "Pelvic and Hernial Therapeutics," etc. New York: John B. Alden. 1887.

The activity of publishers in their issue of treatises on massage shows that this method of treatment is gaining in popularity. The response to this demand in the present instance is characterized by a combination of conciseness and perspicuity. It presupposes some knowledge of anatomy and physiology, and is thus useful only to the physician or the intelligent layman. To such we can consistently commend it.

The Modern Treatment of Diseases of the Heart. Part II., Diseases of the Aorta. By Prof. Dujardin Beaumetz. Translated from the fourth French Edition by E. P. Hurd, M. D. Paper; 12 mo.; pp. 140. Geo. S. Davis, Publisher, Detroit, Mich. 1887.

This is the continuation of the work mentioned in a previous number. It is one of the Physician's Leisure Library, issued monthly by George S. Davis, Detroit, at only $2.50 a year, or 12 numbers. The series is a very valuable one.

SANDER & SONS' EUCALYPTI EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Greifswald.

COLUMBUS

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COMMUNICATIONS.

SOME OBSTETRIC OPERATIONS.

BY JOHN H. CLARK, M.D., MECHANICSBURG, O.

[Read before the Champaign County Medical Society, December 8, 1887, and published by request of the Society.]

It is a well-recognized obstetrical principle that unduly prolonged labor is, in itself, a serious thing; and that this principle is more than ever so recognized by obstetricians of the present day is evidenced by the fact that thirty years ago the forceps was not used more than once in every three hundred cases of labor, while now the instrument is used many times in every one hundred cases. I have no means of giving an average per cent. for general practice, but some special obstetrical practitioners, it is said, use the forceps under the plea of a necessity for speedy delivery, as often as twelve per ccnt. of all cases delivered; however, this, in my estimation, would be an unnecessary use of the instrument.

There are many causes of prolonged labor, but whatsoever the cause, a train of formidable symptoms is developed and a morbid condition induced fraught with peril to both mother and child, more especially is it the case in the second stage of labor. Indeed, delay in the first stage will rarely produce serious trouble, but with prolonged delay in the second the pulse will become hurried, the skin hot and dry, the patient restless and irritable; the condition of the patient becoming serious in proportion to the delay and to the violence of the uterine action. Nausea and vomiting often become marked, the vagina hot, dry and swollen, and if the presenting part be firmly impacted sloughing may even result. Should the patient still remain undelivered, all symptoms become aggravated, the vomiting is increased, the pulse becomes more rapid, feeble, and finally imperceptible; delirium supervenes and the patient dies with exhaustion. Now, this is a sad picture, and one, I am happy to think, but seldom witnessed in modern times, the time-honored maxim that "meddlesome midwifery is bad," not acting so much as a bugbear to deter from timely operative or instrumental interference as a preventive; however, rash interference with nature is ever to be condemned. It is necessary to be skilled and self-confident in the use of obstetrical instruments, and yet we should be restrained from the too frequent and unnecessary use of them. To gain time or more self-convenience will never justify a resort to instruments. However skilled the operator, there is always a greater or less degree of risk in the use of instruments; hence, they should not be used short of a well-founded conviction that the interest of the mother or child demands it.

It is often an important and difficult point to decide when to interfere. Much will depend upon the accoucher to anticipate and prevent danger. Herein I think my own sin has been one rather of omission on the score of delay.

To consider the many causes and conditions giving rise to the necessity for the use of instruments in obstetrical practice would not be within the limits of this paper.

But too frequently there will be a legitimate demand for instrumental aid, and then naturally we turn to the forceps.

There is a wide range of cases requiring the use of the forceps, but most of the causes of a condition requiring the use of this instrument come within narrow limits. Among the most frequent is uterine inertia. Everything may be perfectly normal, save expulsive power, which may completely fail, and that, perhaps, at the last moment; and from this *vis a tergo* failure, aid will be demanded. A minor degree of pelvic deformity, at the outlet or in the cavity, may render an operation necessary. Any mechanical obstruction of hard or soft parts may be a sufficient demand for operative assistance; and in case of convulsions or other conditions calling for speedy delivery, it may be necessary to use the forceps, providing labor has sufficiently advanced to admit of its safe application; and other causes, enumeration being unnecessary; a large majority of all cases occurring among the primiparæ. There are many things to be considered in these cases, but generally it will be better not to delay the application of the forceps longer than one or two hours—three at most—after the progress of labor has been arrested in the second stage, from whatsoever cause, and no matter in what part of the passage the head is arrested, whether at the superior strait, in the cavity, or at the outlet.

An essential condition for the application of the forceps, according to all authorities, is complete dilatation of the os uteri, or at least sufficient dilatation to admit of the safe passage of the blades. There is great contrast between a case requiring the application of the forceps when the head lies upon the perineum and is arrested by simple inertia, and one in which a contracted brim prevents the head from entering the pelvic canal; the operation being quite easily effected in the former, while in the latter the operation is performed under a great mechanical disadvantage, and is attended with difficulty and danger.

It is still a mooted question as to whether the forceps should be applied in relation to the pelvis or with reference to the child's head. Most authors, I believe, American and foreign, teach that the forceps should be applied to the sides of the child's head, if it be possible to do so, no matter what may be its position in the pelvis. Many others, however, and they equally eminent, both at home and abroad, claim that the position of the head should be disregarded and the blades applied in relation to the pelvic transverse diameter, which is always safer for the mother, and generally results equally well for the child. In this (the latter) way I have usually applied the instrument, and have had no cause to regret it. It requires an expert to apply the blades, as a rule, with reference to the child's head, especially when at the brim of the pelvis. Here the long double curved forceps is the only one to be used. I prefer to have the patient in the dorsal position, which is generally preferred in this country. Extractive force, with moderate compression, acting in unison with uterine contraction, is generally all that is required to deliver the child. Also in the absence of uterine contraction extractive efforts must intermit, imitating as far as possible the normal process, remembering always to apply the force, as nearly as can be, in the line of the axis of that part of the pelvic canal in which the child's head is arrested.

I will forego further details as to the forceps, and pass to the more objectionable and formidable *Cesarean Section, versus the hideous Craniotomy.*

These may be called days of fondness for heroic intrumental operations.

When absolutely certain that conservative means — as manual aid in turning, or instrumental, as the use of the forceps — will not suffice, then, and then only, are we justified in resorting to cutting instruments. Craniotomy is, in one sense, if not in its fullest sense, the most objectionable of all the operations of midwifery, most certainly involving the destruction of the child, if living.

One shrinks, naturally, with repugnance from an operation which necessarily implies mutilation of even a dead child, and much more the destruction of a living one. Of course, our most earnest desire is to save, if possible, both mother and child, but certainly, where but one can be saved, the mother's life is paramount. The value of the life of the child in utero must be considered below the life of the mother. If it becomes wholly obvious that there is no hope of a result favorable for both mother and child, we may feel sure that we are fully justified in giving the mother an increased chance by the loss of the child. Mark, I say if we recognize in this the *only mode* of saving the more important maternal life — at the sacrifice of the fetal, which seldom, *if ever*, happens. The question as to the justifiableness of craniotomy on the living child has been a vexed one for ages, the operation being a very old one in midwifery, as it is claimed to have been performed, on the dead child, in the days of Hippocrates, but, until the end of the seventeenth century, it was not considered, by any one, justifiable in the case of a living child; it then came to be hotly discussed, pro and con, whether the life of the child might not be sacrificed in the interest of the mother. It was authoritatively ruled — from a medico-theological stand-point — that the destruction of the child, in any case, was mortal sin, and such is still the dictum of the Romish Church, nevertheless it is recognized by most of the medical faculty as a *dernier ressort*.

Pelvic contraction, a want of proper proportion between the head of the child and the maternal passages, is the most common cause for which the operation is performed. When the antero-posterior diameter at the brim is less than three inches it will be difficult, if not impossible, for a living child to pass, and a diameter of one and a half or two inches is the smallest space through which the mutilated fetus can be removed, hence craniotomy, even with a dead child, is not always practicable, on account of extreme deformity, and the operation is by no means a safe one to the mother, especially when there is present this considerable degree of pelvic contraction.

I am doubtful, as before intimated, as to whether craniotomy on the living child is ever justifiable — it may be so — but in deciding a grave case of this kind, no hot haste and dispatch are to be substituted for patience and sober judgment.

With an increased regard for fetal life, of late, there seems to be a decided recoiling against craniotomy on the living child, with a corresponding tendency in favor of the Cesarean section; and, with the more recent better per cent. of recoveries after the operation, there is *good reason* and not *sheer madness* in it.

I deem it unnecessary to enter into a description of either of the operations of craniotomy or Cesarean section, but will consider briefly the latter, as to circumstances under which it is justifiable, and what, as a conservative resource, are its true relations to craniotomy.

For the operation of either craniotomy or the Cesarean section, there should be at least a fair degree of skill possessed, with painstaking and judgment.

If known beyond doubt that the child is dead, with a favorable condition on the part of the mother, certainly no one will controvert the propriety of the operation of craniotomy. It is often, however, a difficult matter to decide as to whether the child is living or dead, in utero. Also, upon the other hand, it must be conceded that the Cesarean operation is called for on the living mother in all cases in which, from the extreme pelvic contraction, distortion or other condition of the maternal parts, it becomes impossible to deliver by craniotomy.

But the question, shall we destroy the child *primarily* in the *interest* of the mother? is a vastly different and a most serious one.

Dr. Harris, the editor of the American edition of "Playfair's Midwifery," statistically gives a favorable comparison on the part of the United States obstetricians, giving 112 cases of the Cesarean section performed in this country with 48 mothers and 43 children saved. Yet in selected cases foreign operators make a better showing than this. The operation would be far more favorable to mother and child if, as a general principle, it was resorted to earlier—as soon as labor begins, or as soon after as can be diagnosed necessary, and not left, as has been too generally the case, until the last spark of life is about extinguished. Could the necessity of an operation, in a pending case, be known prior to the time of its performance, it would be a great factor of success, as all necessary arrangements and preparations—as for ovariotomy—could be made carefully and considerately, with the necessary three or more assistants selected for the operation. It is reasonably claimed that the full time is the most favorable for the section, as the healing process is more likely to be facilitated by the normal physiological phenomena of involution.

It is often a very nice point to recognize the various degrees of pelvic deformity, even when an opportunity presents, and with the primipara more especially. Unless the deformity is considerable, it is seldom known to the attendant until labor is in progsess.

Then, as before stated, an early and timely Cesarean operation, with necessary skill and precaution, will insure a fair per cent. of success, giving child as well as mother a chance.

The outlook now is that, in the not very distant future, this operation will supercede largely that of craniotomy, and will compare favorably, as to success, with ovariotomy. Yet we must not lose sight of the fact that the Cesarean is an heroic and dangerous operation, and its very suggestion would strike terror to patient, husband and friends, and often would not be permitted, at least until it was a forlorn hope, and then it had about as well not be done. Indeed, it is from operating under these extremely unfavorable conditions—it being a marvel if the operation should be a success—that has until more recently kept it in disrepute.

Doubtless under the most favorable circumstances, more mothers will be lost in the Cesarean section than from craniotomy, but we must bear in mind that craniotomy, on the living child, is certain to carry with it one death, and it may be two; and who with even, comparatively, a small chance for the mother, through the section, would not hesitate to deliberately destroy the living offspring in order to enhance the chances of the mother.

The immediate dangers of the operation are from hemorrhage, shock, etc., and subsequently from peritonitis, metritis and septic trouble.

The *Porro* operation, or modification of the Cesarean, which consists in the removal of the uterus and ovaries after the extraction of the child, is advocated where the flow and drainage from the uterus would be obstructed by stenosis of the cirvix or vagina, or from other obstructions. The Cesarean section is given the preference when there is a fair prospect that the patient can endure another pregnancy and delivery; the total extirpation when there is no hope of future maternity, or when disease of the uterus may require it.

Dr. Lusk, of New York, has recently given new encouragement for the Cesarean operation. He thinks it not more dangerous, in case of contracted pelvis, than craniotomy. It has been my lot to have to perform craniotomy a few times, but I trust not upon the living child; and I now think that in the event of deciding between craniotomy on the living child and the Cesarean section, I should determine upon the latter. It is but seldom, comparatively, that either operation is required, and yet it is well to bear in mind the fact that an emergency may arise, and then what shall be done?

PROF. SAMUEL D. GROSS says, in his autobiography: "To accomplish great ends demands patience, perseverence, unswerving application, order and system, and a definite aim — in a word, talent rather than genius. The only genius I possess is the genius of industry; if I have any other I have not been able to discover it. The position which I have attained in my profession has been achieved by hard blows, by no special intellectual endowment, by no special gifts from God, by no special from man, but by my own unaided efforts, continued steadily and perseveringly through a long series of years, during which a kind Providence afforded me sound health, lofty ambition and unflinching fidelity to my profession. I never spoke ill of a professional brother, or did anything directly or indirectly to undermine his standing with his patients, the profession or the public. On the contrary, I have often gone out of my way to sustain and defend him, sometimes, I fear, when silence might have been the correct course."

MATERNAL IMPRESSION ON THE FETUS IN UTERO.

[An essay delivered before the Sumner County Medical Society of Kansas.]

BY W. T. EVANS, M. D., PARSONS, KAN.

In attempting to fulfill the promise made at the last meeting of this Society to present an essay on maternal impressions of the mother on the fetus in utero, I have not the vanity to believe that I can present anything new on this very perplexing question. The literature on this subject is extremely meagre, and my personal experience and observation is extremely limited in this particular. The facts, so far as they are known, are open alike to all the members of the medical profession, and perhaps have been studied much more closely by some of you than by the essayist. The question, however, seems to be exciting some interest in the medical profession at this time. At the meeting of the Gynecological Society in Baltimore, in September, 1886, Dr. Fordyce Barker read an essay on this subject. He starts out with the assertion that the belief that maternal impressions may effect the development and nutrition of the fetus has existed from the earliest times and still prevails; while the occurrence of cases proving the truth of this belief are rare, he said, there was sufficient evidence to make it as certain as any other fact that can not be explained by science, as, for instance, earthquakes. To this assertion of Dr. Barker's I can not agree. There seems to be a deficiency of evidence to satisfy an enquiring mind as to the truth of these assertions, and no difference how high the authority, nor from what source it may come, I can not believe it unless there is sufficient evidence of a philosophical nature to suggest to my mind the truth of the propositions.

In the consideration of this question our minds are naturally directed to monstrosities, to arrest of development and excess of development, and this excess or deficiency of development is not confined to the human species, but is found in lower animals as well, and it is to the domestic animals principally that we are indebted for facts on this subject. In them we have the opportunity of watching the processes of nature with much more precision than we can in the human subject, and then the various manner in which they produce their young gives us an opportunity of watching the processes of nature in their procreation which we do not possess in the human female, and it is to the process of reproduction in domestic animals that I shall have to direct your attention for very many facts in relation to this difficult question. Who is it in our profession that has not heard of two-headed calves and lambs? Chickens are frequently hatched with supernumerary toes, and with two heads and other abnomalities.

There is another point in these cases that presents itself to our minds, and that is, what part does the male perform, and what part the female, in the reproduction of offspring? It might be supposed, and may be argued, that the female holds within her own person all the essentials of the new being, and that the male merely vitalizes the ovum, or gives it the life forming fillip. We all know that the egg of the young pullet, laid before she has had access to the male, will not hatch; it needs to be vitalized by the semen of the male before any living being can be produced from it. And what takes place in other portions of the animal kingdom, we may presume takes place in the human race. The theory now prevalent, I believe, is that the spermatozoa travel from the vagina of the female to the uterns and into the fallopian tubes, and then meet and penetrate the ovum and vitalize it. So much, I believe, is agreed upon by the profession. But when the spermatozoa meet and vitalize the ovum is all done that the male performs? Is the balance of the formative process under the control or within the power of the female alone? This is a very important question in regard to reproduction, and to it I answer emphatically, No. The spermatozoon sets its seal upon the ovum and goes with it through the whole formative process and leaves its impression, which cannot be gotten rid of. To prove our assertion, let us take the case of a negro impregnating the ovum of a white woman. The offspring will be a more or less dark mulatto, with thick lips, nappy hair and flat nose. The effect of vitalizing the ovum of a white woman with the spermatozoa of a negro is that he sets his seal upon every part; he not only vitalizes the ovum but he changes the organization of the hair from the beautiful, long, silky hair of the European to the nappy, curly, crispy wool of the negro; he changes the thin, ruby lips of the European to the thick, protuberant lips of the African, and he changes the aquiline European nose to the flat wide-nostrilled nose of the African. We see then that the influence of the male does not cease with the vitalizing of the ovum, but that the two vital fluids continue to act upon each other during the whole period of pregnancy, and produce a unity of action in the material constituting the fetus that continue through life.

Now let us ask ourselves if all the constituents that form a living being exist when the ovum of the female and the spermatozoon of the male are intermingled; if all the materials are there to form bone, muscle, blood, brain and nervous tissue? Is it not altogether probable that in the very inception of fecundation there is some deficiency, some lack of power, some lack of maturity, some way or other, or in some place, whereby the process of formation of some structure is not duly vivified; or may there not be an excess of formative matter where too many organs are formed? Dr. Fordyce Barker seems to incline to the idea that the nutrition of the fetus is dependent upon the mother, and I suppose this view is entertained by the profession generally; but in this we may be mistaken. We frequently find feeble, weakly women, women in the last stages of consumption, giving birth to hearty, vigorous children; while stout, healthy women frequently give birth to feeble and very poorly developed children; but if the male parent, as I believe, has the power of impressing his constitutional diatheses upon the offspring, then certainly the development and health and vigor of the offspring does not depend entirely upon the material furnished by the mother. And this is in conformity with what we see daily in the improvement of stock. The farmer or stock raiser crosses his female stock with male stock that is better formed and better proportioned, and the offspring resembles the male; he sets his impression upon it and gives it strength and nourishment, and makes its growth strong and vigorous. Indeed, it may be doubted whether the mother furnishes any nourishment to the fetus outside of what is originally furnished in the ovum. It is now well understood that the circulation of the fetus and that of the mother in the placenta are entirely separated from each other by a delicate membrane, and that through this membrane the blood of the fetus receives oxygen from the blood of the mother, and is relieved of carbonic acid. We think the whole nourishment of the fetus is contained in the ovum of the female and the spermatozoon of the male. If we look at the oviparous animal kingdom we shall be convinced, I think, of this fact, or that this is the case. In the egg of the domestic fowl is contained the white, or albumen, and the yolk, and these two substances are enveloped or surrounded by the egg shell, composed of carbonate of lime; here, evidently, the embryo receives no nourishment from the mother. The heat of the mother's body, or any artificial heat kept up at a regular temperature, will produce the formation and growth of the young chick. Here, from the albumen and yolk of the egg, are formed the blood and blood vessels;

the bones, the muscles, the brain, the nervous system, the heart, the lungs, the intestines, the eye, the ear, and all the various other organs constituting a living being; here the bony matter takes its place in regular order, the long bones are formed, and in their regular places; the skull is formed in a hollow cavity or cone to receive the brain; the bony cavity to receive the eye, and the brain to fill the cavity formed for it, and the eye to fill the orbital cavity; the bones of the thorax take their places and the lungs and intestines in all their various ramifications are placed in the cavities intended for them with as much regularity and nicety as the most skillful architect could make an artificial model. Now let us enquire how this is all done, how, after all these organs are formed, the heart and the blood vessels and everything is ready, what gives it the start, what is it that first starts the heart in motion and keeps up the regular action and circulation until the young chick has attained sufficient strength to use his bill, tap the shell, make a hole and crawl out—certainly nothing that the mother has done other than keep the egg warm, and this can be done as well without her assistance as with it. Certainly she has done nothing towards nourishing the young chick; how, then, shall we account for the formative process other than the egg of the female, vitalized by the semen of the male contains within itself the materials necessary to the formation of a living being, and that when they are set in motion by the action or influence of heat each particular part of that egg has been formed for a particular purpose, and when set in motion takes its proper position and place in the organization, and that this vitality is impressed upon it by or from the male, and that by no mental effort whatever can the female arrest or transform any process of nature. These processes are the laws of nature, and are not under the control of the female in any sense whatever, and they will of themselves, and in spite of the female, continue their formative process until a living being is produced in accordance with the impressions made and the tissues vitalized in fecundation, unless the process is arrested by death, disease or extreme violence.

I once delivered a young girl of a bastard child who told me that she had taken all the drugs she could hear of, and in enormous doses; had rode horseback at a furious rate, had jumped from the saddle to the ground, and had jumped from high fences in order to produce miscarriage, but none of these things interfered with the formative process, and at full term she was delivered of a healthy, well-formed child.

Having gone through the physiology of reproduction as we understand it, let us now turn our attention to abnormalities in the female process of reproduction. Children are occasionally born with an excess of limbs, and sometimes with a deficiency of limbs, and sometimes without a head, and the belief to some extent exists that the mother's ideas become fixed upon some abnormality or some exciting circumstance, and that this mental impression is of such a character and so persistent as to arrest the formative action, or disorder, or transform it, and that the formative process partakes of the idea or impression of the woman. This, to my mind, would enable woman to always have beautiful children; all that would be necessary would be for her to have her ideas fixed steadfastly and persistently on some figure of human beauty, and her offspring would be modeled after that type. But it is only occasionally that some one of these abnormalities is assigned to mental impressions—perhaps not one in a hundred is attributed to mental impressions, and certainly a large number of these abnormalities are of a nature that never were seen by the women who bear the children afflicted with them. Lusk, in his *Midwifery*, gives two examples of double uterus and double vagina; it is entirely and altogether unlikely that the mother of these girls ever heard of such things, but the children were born this way and without, in all reasonable probability, there ever being any mental impression of this kind upon the minds of the mothers; but there was a superabundance of formative material directed to these parts, and in consequence of the richness of the vitalizing substance, the consequence was the formation of double organs. Then we have moles, that have no likeness to any organized being. I once delivered a woman of what might be called a mole, consisting of a round roll of adipose tissue about ten or twelve inches long and four or five inches in thickness. It was about the same thickness throughout, was covered by a normal skin, and contained a little tuft of hair on one extremity, but no bones, so far as I could ascertain. Here, certainly, was an instance of a case of deranged conception not produced by any mental impression of the woman; the whole process of organization was destroyed. Now, how did this occur? Not from any mental impression, for so far as I could ascertain, there was none, but, in all reasonable probability, the male semen was defective and failed to properly vitalize the ovum, or the ovum itself was defective. We must come to some such conclusion, for there was an effort at reproduction or formation, but the process was abnormal and defective. We have children frequently born with cleft palate, or hare-lip, or both, and in these cases there has never been, so far as my knowledge extends, any claim that these deformities depended upon mental impression, and physiology explains the deformity on very different grounds. The upper jaw is formed from two points of ossification, commencing at each extremity and uniting in the middle, and when these processes fail to unite cleft palate is the result, and when the soft tissues fail to unite, the consequence is hare-lip. Now, in both deformities arrest of development is the cause, and I think this answers the cause of deformities; they are either from arrest of development or proliferation of productive material by which there is excessive development. By either of these derangements abnormalities may be produced.

Again, the abnormalities are sometimes of such a nature as to preclude the possibility of the mother ever having any idea of anything analogous to what occurs in the formation of the offspring. I once knew a man whose left arm and hand were the parts malformed; the right arm and hand were normal, but the left arm had no forearm, there was merely a small arm extending from the shoulder to the elbow (or where the elbow ought to have been); there was a wrist joint and a small hand, about the size of that of an eight-year-old child's. Now, it is not likely that the mother ever saw or had any conception of such a deformity, for such cases are very uncommon.

Again these abnormalities occur in the lower order of the animal creation, as among horses, cattle, sheep and hogs. Darwin, in his Origin of Species, gives the case of pigs born with a proboscis, and in the abnormalities of horses, cattle, sheep and hogs, it is altogether unlikely that the mother had any mental impression formed by sight or reflection about abnormalities in other offspring of the same or other species, either natural or produced by accident, as their field of observation is very limited, being usually kept on the same farm and associated with the same stock, there would be no case or circumstances calculated to excite a mental impression or to keep up and continue it, consequently abnormalities among the domestic animals must be accounted for on some other hypothesis than mental impressions, and if they can be accounted for without mental impressions in the domestic animals, why not in the human species.

Again, as has already been said in the essay, in the domestic fowl chickens are frequently hatched with supernumerary toes and with double heads; it can hardly be contended that the female of the domestic fowl can exercise any mental impression or influence over the ovum in the egg covered by a shell of carbonate of lime and the offspring can be brought to maturity by artificial heat without any participation whatever of the parent female. And here comes in again our argument that whatever abnormalities exist in the chick exist in the egg, or in the vitalizing effect of the semen or spermatozoa of the male. This doctrine we hold as the cause of all abnormalities, whether they exist as supernumerary parts, or deficiency of parts, or imperfectly developed parts.

With these views we close the essay, hoping, however imperfectly the subject may have been treated, that the facts set forth may lead the profession to think on the subject, point out the errors of the essay, and by more deliberate and mature consideration arrive at true and legitimate conclusions.

THE CONSUMPTION OF ALCOHOL ON MORALITY AND HEALTH.—The following statements made by M. de Flaix are deserving the consideration of students of the alcohol question. M. de Flaix says: "The birth-rate is less and the mortality greater in the departments where the consumption of alcohol is small; that neither crime nor suicide is in proportion to alcoholic consumption. Thus in the Seine-Inferieure the consumption of alcohol is three times that in the Nord, but suicide is only twice as frequent. In the Pas-de-Calais the consumption is twice as great as that of the Nord, while suicide is two and a half times less. In the Seine-et-Oise the consumption is one-half less than that of the Seine-Inferieure, but suicide in the former is twice that of the latter." Comparing different nations, he says: "France consumes less alcohol than the United Kingdom, its birth-rate is less, and its mortality, criminality, and suicide rates are greater. Italy consumes very little alcohol; its criminality is appalling. Spain consumes three times less alcohol than Italy; its criminality is double. Sweden, Denmark and Norway, with a population of about one-third, consume four times the quantity of alcohol consumed in Italy, and yet the criminality of the former is very small, while that of the latter is appalling. Russia consumes four times the alcohol of France; its birth-rate is almost double. Thus, all the hypotheses are upset; the most vigorous, the richest and the most moral of the nations are those which consume the most alcohol. The prediction that alcohol will destroy civilization and the human race is not supported by facts. If France, whose vitality is undergoing a crisis, were among the nations which consume the most alcohol, she would serve as an excellent argument; but the consumption of alcohol by France is moderate, and it has been established already that those parts of France are the most vigorous where the consumption of alcohol is greatest."—*Med. Record.*

SUDDEN DEATH FROM HEART FAILURE IN A CASE OF PULMONARY TUBERCULOSIS.

BY F. H. WILLIAMS, M. D., BURLINGTON, OHIO.

Frank G., aged nineteen years, came under my care September 25, 1887, with a history of failing health, with cough and expectoration for almost a year. His condition at this time was as follows: Pulse 120, temperature 104°, respiration 30, and there was some diarrhea present, with night sweats, a troublesome cough, and profuse mucopurulent expectoration. Physical examination showed both lungs involved, the left one the more advanced. He had just returned from Kansas a few days before seen, and it was thought the long journey might have aggravated his symptoms. He was ordered a daily bath, all the open air exercise he could bear, whisky and egg-nogg quite freely, cod liver oil, and tonics, with sufficient morphia to palliate the cough, and it was proposed to his father that he be put on the *Bergeon treatment*; this was deferred for a time, however, and about October 1st he was taken to Cincinnati, and Prof. Mackenzie and Dr. Carson consulted. Dr. Carson also advised the gas treatment, and, accordingly, on his return it was begun, with the effect of mitigating his symptoms to rather a marked degree. The temperature fell to almost normal, 99.5°, pulse to 80, the cough and expectoration were very much lessened, and the appetite improved; but the diarrhea before spoken of again became troublesome, and required pretty full doses of opium and bismuth subnit. to restrain it. October 24th his father sent for me, saying he had noticed the boy's pulse was quite irregular. I saw him that evening and found his pulse 80, *regular*, but rather weaker than I had noted any time previously; as I was in a hurry I made no examination of the heart, but directed him carbonate of ammonia, tr. digitalis and tr. belladonna every four or five hours; saw him again October 30; then his pulse was 90, weak and very irregular. I then examined the chest; found the lungs about *statu quo*; the heart somewhat dilated, its action weak and irregular, *but no valvular disease;* continued the above mixture and gave in addition nux vomica, ¼ gr. three times daily. November 3 his father called at the office to get some medicine to restrain the diarrhea, and said the boy had had a slight attack of *dyspnea* the night before, but it had soon passed off; this was the first attack he had ever had. He wanted me to see the boy again the following Sunday, November 6. But on Saturday, after laying down awhile, he got up, sat down in a chair, and in a few minutes asked his father to fan him, as he could not breathe; but before his father reached him he ceased to breathe for all time. I have read of no other case of sudden death while under the *Bergeon treatment*, and cannot think that it hastened his death. It seemed to me rather singular that there was but one attack of dyspnea prior to his death.

REVELATIONS OF PREHISTORIC TARTAR.—Some curious evidences of the diet of our prehistoric ancestors of the "stone age" were recently brought before the Odontological Society of Great Britain by Mr. Charles White. Whilst examining some dolicho-cephalic skulls found in a "long" barrow near Heytesbury, in Wiltshire, Mr. White was struck with the thought that as particles of food become imprisoned in the dental tartar, sealed up in a calcareous cement, and can be made to reveal themselves on solution of this material, it would be an interesting revelation if the tartar found on these teeth of the stone age could be made to give up its secrets in a similar manner. He accordingly carefully decalcified some small portions with dilute hydrochloric acid and examined the sediment under the microscope. The sediment consisted of small, drab-colored masses, apparently composed chiefly of altered and disintegrated epithelias scales mixed with the contents of starch cells. Throughout these masses were scattered grains of sand in great abundance; polarized light showed these to be of two kinds, some being composed of silex and others of quartz or granite. Their presence was to be accounted for by the method of grinding corn between two gritty stones practiced in those times, and the grinding surfaces of the teeth were worn down in the most extraordinary manner from the same cause. Besides these, scattered through the sediment, Mr. White was able to identify portions of husks of corn, hairs from the outside of the husks, spiral vessels from vegetables, husks of starch, the point of a fish's tooth, a conglomeration of oval cells, probably of fruit, barblets of feathers, portions of wool, and some fragments of cartilage, together with some other organic remains which he failed to recognize. "Long" barrows are considered by archeologists to be older than the round barrows, and it is thought probable that they contain the relics of the earliest inhabitants of Britain of whom any sepulchral monuments exist. This opinion is based upon the fact that no weapons or instruments of metal of any kind have ever been found in them, though weapons of bone and stone are occasionally met with. The pottery, also, found in them is of the rudest kind, and quite devoid of ornament. The fact that vegetable tissue should be found in such a state as to be easily recognizable after the lapse of probably not less than three thousand years, is certainly remarkable; whilst the presence of fragments of wool and feathers would seem to indicate that these people were accustomed to eat their food in an uncooked condition.—*Brit. Med. Jour.*

PATENTS AND COPYRIGHTS, A DISTINCTION WITHOUT A DIFFERENCE.

I. W. CHISHOLM, M. D., NEW CONCORD, O.

In looking into our "Spectroscope" there are some things that present themselves to our vision that seem difficult of comprehension, viz:

On scanning the pages of our "Code of Ethics" we are told that "no member of the profession is permitted to patent any surgical device or appliance" (or words to that effect)—it makes no difference however valuable, or how much time and expense it may have cost its designer; for by so doing the inference to be drawn is—it is a lowering of dignity. We turn the "Spectroscope" and we behold a man writing a book with a name and an emblazonry of plumed titles that consume nearly all the letters of the alphabet, and after months of writing, in which occur a series of transpositions and compilations, the manuscript passes into the hands of the publisher, by whom it is patented? Oh, no, "Copyrighted;" and ere long an agent with fine address presents himself and politely inquires if we are at leisure, and after courteously replying in the affirmative, the agent begins, with faultless diction, saying his "little speech," setting forth in the most glowing rhetorical flashes of human thought that the work he is exhibiting, for intellectual grandeur, conciseness and comprehensiveness, surpasses all others;— that in its compilation was engaged the most able corps of "specialists"— oh, no! not "specialists," as that term is objectionable to some of our dignitaries, but men who have devoted their whole lives to the study of the departments therein discussed, and finally terminates his glowing description by asking us to subscribe. Then we reply that we would like to, but then our finances— when the agent interrupts by saying the book will be delivered any time during the coming year, and that we need not pay for it until its delivery. The scene closes and the agent retires, and time in its rapid flight announces the arrival of this book of books, and we open it with unbounded confidence that we will be presented by an array of "Specifics," which will cause even the "Angel of Death" to look on and tremble; but after reading page after page of symptomatic pathology, diagnosis, prognosis, we finally come to the treatment, when we are startled by the fact, that the treatment heretofore in all former books consisted of calomel, opium and quinine, but in this age of medical, scientific progress, now consists of calomel, quinine and opium.

The book is not patented, but copyrighted by John Smith & Co., publishers. The author, with all his plumed titles, receives no compensation for his labors? Oh, no! W-e-ll, yes, while seated in the background, obtains from the publishers from two to five dollars on each book sold as per agreement between him and the publishers, while the designer of the surgical appliance, which perhaps has required more brain, time and expense, and is of more genuine PRACTICAL VALUE to the profession in restoring and relieving suffering humanity, than the plumed dignitary's "COPYRIGHTED" compilation, receives nothing, not even — HASH.

In this age of rapid transit, condensation and cheap journalism, we are able to glean often times more from our weekly, monthly and quarterly visitors than we are from our leather and Morocco bound volumes that adorn our shelves; and how often are we more indebted to the brain and genius of the designer of some surgical appliance than the many (patent) "copyrighted" volumes we are frequently being asked to purchase.

CONTEMPT OF COURT.—Of all curious reading that we have enjoyed in some time, we think that afforded by a communication from Dr. F. E. Stewart to the current number of the *Druggists' Circular* certainly caps the climax. It affords a splendid illustration of the wisdom of the adage which advises the shoemaker to stick to his last. Whenever a physician strays from his own profession into the intricacies of the law, and especially of the patent laws of this country, his feet are in dangerous and slippery ground, no matter where his head or heart may be. In the present paper, Dr. Stewart attacks the recent decision of the United States District Court in the matter of the suit of Battle & Co. against the Grosses (Daniel W. and Edward Z.), for infringement of their copyright of Bromidia. He declares that the decision is not final or binding, and advises the Grosses and druggists generally not to pay any attention to it. Dr. Stewart thus puts himself in contempt of the United States Courts and advises others to place themselves in the same foolish and dangerous predicament. The queer part of the matter, however, is that every reason which he advances against the validity and justice of the decision is the strongest possible argument in its favor, and the reader must be obtuse indeed not to see that it is so. This view of it was evidently taken by the editor of the *Circular*, who says: "While giving Dr. Stewart's argument publicity on account of its novelty, we think it proper to remind pharmacists that they are bound by the decision so long as it is allowed to stand"—which advice is good, sound sense, like pretty much everything that emanates from the editor of the journal quoted.—*St. Louis Medical and Surgical Journal, January, 1888.*

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OBSTETRICS.

TREATMENT OF SIALORRHEA OF PREGNANCY.—As Justus Schramm has remarked, "of all the troubles of pregnancy, excessive salivation has received the least attention." The reason is, probably, that it rarely or never becomes a grave trouble, and its duration usually is self-limited. A writer in the *Berliner Klinische Wochenschrift* has recently published a most excellent study on the subject, in which he discusses the various views advanced as to its etiology, pathology, etc., and gives in detail the history of the treatment of several very interesting cases. Without entering into the minutiæ we may sum up the therapeutic results as follows:

Astringent gargles and collutories; no results whatever.

Potassium iodide; after twenty-four days of trial, no results.

Atropine; caused a diminution of flow which lasted while the medicament was used. At no time did this diminution approach even a cessation of the flow, or the normal standard of salivation.

Duboisine—the same as atropine.

Galvanism of the sympathetic caused a sensible diminution of the flow, controlling it measurably, but never quite stopping it. This would indicate that the phenomenon is an uterine reflex.

Pilocarpine, so ardently recommended by Labbe and Davesau, had apparently no effect.

Bromide of potassium, from the very moment of its exhibition, showed itself to be the long sought drug. Under its influence the flow of saliva rapidly and steadily decreased and reached a minimum in a few hours. The strength of the patient, sadly invaded by the constant drain and its attendant annoyances, rapidly returned. As to the dosage, it must be regulated to the exigencies of the case.— *St. Louis Med. and Surg. Jour.*

SUPPURATIVE PERITONITIS SHOULD BE TREATED BY ABDOMINAL SECTION.—Tait, in his last address before the British Gynecological Society, gives his opinion in no uncertain tone: "I have now come deliberately to the opinion," he says, "that it is an act of criminal omission to allow a case of peritonitis to die without abdominal section." Anyone who has seen the abdominal cavity of a patient dead from peritoneal suppuration must feel that he is right. It is all but impossible that such a case should recover when left to nature; and there is no reason why the old rule, and the good rule to evacuate pus wherever it may form, and as early as possible, should not be observed here. We recall a case in which the abdominal cavity of a child was enormously distended with pus, the result of peritonitis, produced by some unknown cause. The peritoneum in those days was more respected than now, and we hesitated to interfere. Finally, the pus was evacuated by a spontaneous opening in the region of the navel, and the child recovered. This, then, is nature's way of curing an abscess of the peritoneum—an abscess of the pleural sac—an abscess anywhere.—*So. Cal. Practitioner.*

GRAVITY OF HEMORRHAGE FROM THE GENITAL ORGANS DURING GESTATION.—The appearance of a hemorrhage from the genital organs during the last months of pregnancy has hitherto always been associated by obstetricians with *placenta previa.* While, says M. Legry (in *Le Progres Medical*) it is true that this form of hemorrhage is due in a large number of cases to a vicious attachment of the placenta, it is well to remember that in a certain proportion of cases the etiology is entirely different. In the latter category we must place hemorrhages due to the rupture of varices of the external genitalia. The true source of the flow of blood is often overlooked, and the result is the more deplorable because promptness of intervention is so frequently the only possible hope of salvation. To illustrate the truth of the observation M. Legry gives the history of a case in which the rupture of a minute varix on the internal face of one of the labia minora gave rise to a hemorrhage so excessive that in the space of less than three hours the patient was reduced to a condition of complete collapse. She was saved by energetic and careful treatment, but the extreme gravity of the case seemed so illy proportioned to the apparent triviality of the cause, that M. Legry searched up the literature of the subject. Outside of the cases cited by Budin (nine in all), he found but four others reported (two each by Young and Berthod), or a total of thirteen, of which nine, or nearly 70 per cent., were fatal. The excessive abundance of the hemorrhage was a marked feature in every case. The bleeding had come on spontaneously in some of the cases, and in others it was due to traumatisms so slight as to have been almost imperceptible at the moment of lesion—a pin-scratch, for instance. In several of the cases the hemorrhage was so rapid that the patient died before medical aid could be summoned. In the four recoveries which were noted, only one owed her life to spontaneous cessation of hemorrhage. The error of diagnosis which is likely to be made in these cases is, as suggested above, the promptness to attribute flows of blood under such circumstances to *placenta previa.* Vaginal tamponment would in these cases have but little or no beneficial effect—possibly a slight checking due to pressure above the point of lesion. Accoucheurs and surgeons called in cases of sudden and profuse hemorrhages occurring during the latter part of gestation, therefore, should in all cases make a most careful examination of the external genitalia, and satisfy themselves that the flow is not due to rupture of varices thereon.—*St. Louis Med. and Surg. Jour.*

ELECTROLYSIS IN THE TREATMENT OF FIBROID TUMOR OF THE UTERUS. —At a meeting of the Chicago Medical Society, Dr. Franklin H. Martin considered the above subject under the following heads:

1. Consideration of the tumor.
2. Means of generating the current.
3. Electrodes, connections and other apparatus.
4. Electrolytic action of the current.
5. Cataphoric action of the continuous current.
6. The difference in the local action of the two poles with powerful currents.
7. Operation and details of application, with a description of Apostoli's method.

The battery used should be one capable of generating a continuous strength of 200 milliamperes. The use of such a strong current is made practicable by improvements in electrodes and conduction. Apostoli overcame the pain caused by high tension currents by using as a surface electrode a thick paste of potter's clay spread upon the abdomen, with proper connections from a plate of soft metal upon its free surface. This electrode has the objection of being inelegant. Dr. Martin presented a decided innovation in the way of a surface electrode. From a soft plate of metal, the margins of which are bent so as to form a concavity upon one surface of an inch in depth, he has constructed an electrode by stretching loose over the cavity an animal membrane, making the surface between the metal and the membrane water-tight. Through a stopper in the metal surface the inter-surface is filled with a warm saturated solution of chloride of sodium. This contrivance presents all the advantages of the potter's clay electrode of Apostoli. The internal electrodes include a uterine sound of plantinum with the intra-vaginal portion insulated, a sharp probe of plantinum and iridium with insulating sheath and a number of needles insulated with hard rubber to within an inch of the point. The cataphoric action of the current was described, and to it the author ascribed considerable prominence as aiding absorption of the fibroid growths.

The author offered the following conclusions:

1. A means of generating a continuous current of electricity, which can be increased from 10 to 250 milliampere strength, is necessary in order to obtain all the effects of the electrolytic treatment of fibroid tumors of the uterus.

2. The most distressing hemorrhages from fibroid tumors can be healed by the local coagulating effect of the positive pole if applied intra-uterine.

3. The intra-uterine electrode when positive should be of unattachable metal, and should conform as nearly as possible to the size and shape of the uterine canal, and have the intra-vaginal portions insulated.

4. When the cervical canal cannot be entered a negative galvano-puncture should be made into the presenting part of the obstructing mass of the tumor, and an artificial channel created, which is to take the place of the impenetrable uterine canal in all subsequent treatments.

5. The intra-uterine electrode should in all cases be negative, unless there is hemorrhage or excessive leucorrhea, when the positive pole is required.

6. The strength of the current should be the strongest possible, consistent with the desired therapeutic effect and the toleration of the patient.

7. Cases of intolerance of the high doses arrange themselves under the three following heads: 1, acute hysteria; 2, acute enteritis; 3, acute metritis, peri or para-metritis. The most tolerant are the deep uterine and profuse hemorrhagic.

8. The ordinary duration of the *seance* should be about eight minutes.

9. The number of operations are necessarily dependent upon and influenced by the result to be accomplished. A severe hemorrhage can be checked in from four to five treatments, while a general reduction of the tumor necessitates many, varied, of course, according to the size and location of the tumor. In many cases simply a restoration to health, and a relief from the prominent and annoying symptoms, must be accepted as the substitute for actual cure.

10. The time for commencing treatment matters little, if the tumor is not rapidly growing and no excessive hemorrhage is present. The oper-

ation should be intramenstrual, if possible, but if hemorrhage is continuous, operate during the flow.

11. Extra uterine puncture should be regarded only as a last resort, but every means of reaching the tumor through the uterus being impracticable, seek, if possible, to make the operation extra-peritoneal; should this in turn prove equally undesirable, use as a final alternative the abdominal puncture.

12. In this treatment strict antiseptic precautions should be carried out as in all others.—*Cin. Lancet-Clinic.*

A NEW WAY OF DRESSING THE CORD.—Dr. Camp gives the details in the *N. E. Medical Monthly*: As soon as the child is born, I lay it between the woman's legs, as far away from her body as the cord will allow without stretching it. As soon as the pulsations in the cord cease, not sooner unless an unforseen accident necessitates it, I tie the cord about two inches from the navel with coarse or heavy surgeon's silk, and again an inch further away. I then cut the cord with a scissors curved on the flat between the two ligatures, and hand the new-born infant to the nurse to be wrapped up in flannel.

The nurse is now ordered to anoint the infant with lard, and then to wash it. By the time she gets through with this process I can safely leave the woman. I now wash off the navel end of the placental cord with equal parts of Listerine, which is without doubt one of the very best antiseptics and deodorizers, and glycerine, retie it within an inch of the navel with a ligature of No. 13 iron-dyed surgeon's silk, and cut off the superfluous part of the cord containing the first ligature. Then I wrap the cord in borated absorbent cotton and apply the belly-band in the usual way. The band must be reapplied occasionally, but the cord is not touched again until the sixth or seventh day, when, if it does not come off easily, it is snipped off by the scissors. If this article will induce the reader to try this method in one case, he will not go back to burnt muslin, linen with a hole in it, etc.

MEDICINE.

WALKER (J.) ON THE VALUE OF WRITTEN DIRECTIONS IN THE TREATMENT OF CHRONIC AVD PROLONGED ILLNESS.—A careful study of cases of chronic and prolonged illness led me to believe that patients, though starting out at first with enthusiasm to follow the doctor's advice,—perhaps the new doctor's advice,—after a while grew tired of being limited to this or that thing, or of following out the doctor's directions. And so it comes that chronic cases, or the parents of children who had been long ailing, are ever ready to try new doctors or new remedies. The chronic case is apparently just beginning to be relieved after the attending physician has repeatedly thought and studied about it, when all of a sudden the case whisks off to another doctor, who, perchance, having the previous physician's experience to guide him, takes a different line of treatment, or even follows out the same line and effects a cure, or more commonly the previous doctor's experience is his experience, and the patient, without any warning it may be, hurries to a third doctor, and so on and on until patients grow discouraged because they get little or no relief, and the doctors become discouraged also. Some of these patients, it may be intelligent and well-meaning persons, so lose their faith in the regular medical fraternity that not only do they at times revile them, but are very apt to consult quacks and irregular practitioners of various kinds. How, then, can prolonged or chronic cases of illness be induced to follow out any well-defined plan of treatment under one physician for a sufficient length of time to test the efficacy of the plan. I answer by treating the case on "business principles." Having once decided that such a plan would yield the best results for both patient and physician, I awaited the chronic case. It came in the person of a young lady who had chronically enlarged glands of the neck and behind the ears, which disfigured her. She had been under the care of several physicians, but had been repeatedly discouraged because she seemed to gain no improvement by treatment. I told the father that I would make no promises, but I thought I could help her, providing she would be under my care for at least three months, and would do just as she was told. For the purpose of holding both patient and doctor to faithful work (for it may be said parenthetically that doctors being human are likely to be discouraged if good results are not seen quickly), I proposed the following plan to the father, which was readily agreed to, and was put in writing, one copy being kept by the father, the other by myself:

(*a*) I to treat the patient for three consecutive months from date of writing, either at my office or at her home, seeing her as many times as I thought best, but not less than three times each week.

(*b*) To send my bills in on the first day of each month following the month of treatment.

(*c*) The patient to call at my office for treatment whenever asked to, and to *keep all* appointments, and to follow out the attending physician's directions and no other advice or direction.

(*d*) The directions to be in writing, and full and explicit.

(*e*) Bills to be paid promptly on receipt thereof.

(*f*) If any of the parties interested in the contract fail to do as agreed, the others may withdraw.

This simple agreement answered nicely. The doctor felt reasonably sure of three months' treatment of his patient, and of receiving his money promptly. The patient had the confidence that a contract gives, and came promptly and as agreed upon, even when she felt that the forthcoming treatment would be severe. The father, who paid the bills, felt, as he expressed himself, "I am satisfied, for I know something about where I am. It's business." The case progressed nicely, to the satisfaction of all concerned, and though after the three months had expired the family were out of the city for several months, and treatment had to be discontinued, and a cure in the ordinary sense had not been made, still all concerned were convinced that with the agreement much more had been accomplished than could have been without it.

It will be noticed that in this agreement the physician does not promise a cure, only to do what he believes he can do; neither does he say "no cure no pay," though in some rare instances it may be wise to do so.

In no class of cases has greater benefit resulted than in prolonged gastro-intestinal ailments of children. There are ordinarily so many details necessary as to food, bathing, exercise, and other hygenic measures in the treatment of such ailments, that even the most attentive and careful of mothers or nurses is liable to forget some of them, and has too much pride to ask the doctor to repeat them. The busy doctor rattles off his directions from time to time, feels pleased with himself for his carefulness, but finds, perhaps accidentally, that his orders have not been carried out. The mother or nurse "forgot" what he said; "there were so many things to remember." Even the doctor in the multiplicity of directions he is called upon to give in the busy round of practice finds that he, too, forgets, and is reminded, perhaps, by his little patient that what he says to-day about what he wants done is entirely different and opposed to what he directed yesterday.

It will be said by some that the writing of directions will be a bore for physicians. It need not be, for the physician can furnish himself with blanks having printed headings and sub-heads. After one has become accustomed to filling out these blanks the work will not be irksome, especially when he realizes the value of writing directions in the economizing of time, by saving repetition of oral directions, in his having something to refer to in confirmation of the advice he has given, in the hold which in most instances the directions have upon the patient or his friends. Of course he should be paid for the writing out of these directions.

The directions should be dated, and plainly state who they are written for. Then may follow the headings: Food, air, clothing, exercise, bathing, medicine. If several medicines are to be used it is well to number the prescriptions, No. 1, 2, etc., putting not only when and how each is to be used on the vial or vehicle containing the medicine, but also in the written directions. One hears complaint from time to time from people, that doctors don't plainly state just how medicines should be used, but say, "Used as directed." But, as one lady said: "I have so many bottles of medicine with 'Use as directed' on that I don't know what to do half the time when I go to my medicine-closet."

If with written directions from the doctor there can be frequent but concisely written reports *for* the doctor, as to the food taken, its effect, the amount of sleep, the condition of the urine, the number and character of the passages, etc., there will be more precision in the practice of medicine, more satisfaction, and better pay. For these reports printed blanks may be prepared, as printed documents inspire more respect than those entirely written.

In my experience, written or printed directions are usually looked upon by those using them as something tangible—something that will help the memory and prevent perplexity. We, as physicians, are apt to believe that most persons know how to prepare barley-water and other things which seem commonplace enough to us, but many of us have been surprised to find how few people really do know, and it is not always easy to refer such persons to a reliable and accessible book. How much better it would be to have at hand some printed slips giving such information!—*Arch. of Pediatrics*, Sept., 1887.

RAYNAUD'S DISEASE.—The medical literature which has appeared since Raynaud's last article on the malady which bears his name, contains a number of cases which tend to alter the point of view from which this affection is to be regarded. Raynaud describes three stages: 1st, local syncope, characterized by extreme pallor; 2d, local asphyxia, characterized by lividity; and 3d, local gangrene, the parts affected being usually the fingers, exceptionally the toes, nose, ears, and integument of other parts of the body. One marked peculiarity of the disease, the symmetrical affection of parts, has given rise to the name "Symmetrical Gangrene" for the third stages of the malady. The attacks are usually paroxysmal, and by no means always go beyond the first or second stages. Raynaud believed that spasmodic contraction of the smaller arteries caused all the symptoms. In two cases he observed that contraction of the retinal arteries occurred, in one alternately, in the other simultaneously, with the characteristic phenomena in the hands. From these cases he argued that the disease was probably of spinal origin.

The most complete review of the subject which has yet appeared is that of Hochenegg ("Medizinische Jahrbucher," 1885) under the heading, "Symmetrical Gangrene." His division of the causes of spontaneous gangrene is as follows: I. Diseased vessels. II. Nervous disturbances (trophic or vaso-motor), including acute decubitis, ergotism (?) and symmetrical gangrene (in narrow sense of author). III. As result of pathological state of blood, either of unknown nature or from diabetes or albuminuria. He himself regards the cases described under the heading of Raynaud's disease as depending partly on nervous influences and partly on unknown blood changes. He groups clinically the recorded cases under four heads: I. Occurring from constitutional states; (*a*) as result of over-exertion; (*b*) in chlorosis and chloro-anemia; (*c*) in chronic inflammatory and acute infectious diseases, only such cases being included in which vascular disease could be surely excluded. II. Hysterical cases. III. Symptomatic of neuritis. IV. In diseases of the brain and cord. In some of these cases preliminary vaso-motor changes were observed, in others not. To the writer the inclusion of cases occurring in inflammatory and infectious diseases in this heading seems of questionable propriety, as these cases might be more properly regarded as septic, that form of gangrene being expressly regarded by Raynaud as a class apart from his group of cases. The cases in which its association with neuritis was shown by autopsy are four; that with spinal disease, one, viz., a case of syringo-myelitis without peripheral nerve lesions. The alleged connection with brain lesions is based on one case of gangrene of the toes in a patient with right hemiplegia with subsequent passing off of paralysis and coming on of cerebral degeneration. This case is anything but conclusive.

Weiss reported a clinical case in which the typical phenomena of Raynaud's disease occurred in the hands of a patient who had sloughs on the nates, where no vaso-motor disturbances were obvious, and on the left cheek, which was flushed as the result of a typical paralysis of the sympathetic. This case had also other nutritive disturbances. This case and those in which neuritis or cord lesions were found *post-mortem* seem to strongly support the idea that absolute death of parts is one form of trophic disturbance which may result from lesions of the nervous system. The absence in many cases of preceding vaso-motor disturbances, and especially the above-quoted case of Weiss', suggest that although local syncope and asphyxia are closely associated with the gangrene which sometimes follows them, yet they are probably both effects of a common cause, not cause and effect. The great variety of conditions which are associated with the Raynaud's disease has led to the belief (Grasset, Hochenegg) that the condition is not to be regarded as an independent disease at all. It would seem best to use the terms *local syncope*, *local asphyxia*, and *symmetrical gangrene* simply as descriptive of symptoms, as we use the terms *anesthesia* or *muscular paralysis*, the associated condition being stated in the title of recorded cases. If the term Raynaud's disease is to be used at all it should be sharply restricted to the class of cases which would fall without question under the description at the beginning of this article. In a recent number of the *Medical Record* is recorded a case of "Raynaud's disease" in which there were no vaso-motor disturbances and no gangrene. It was a case of gradual ulceration of the finger tips with loss of the nails, etc. The case appeared to be a trophoneurosis well worthy of record, and possibly belonged to the same group of affections as the genuine Raynaud symptom-complex, but it certainly was not the morbid condition described by Raynaud. This case may be taken as typical of others that might be cited. It is better, in the present state of our knowledge, to record such cases under a descriptive heading. The number of obscure disorders, nutritive and sensory, of the extremities already described in medical literature, is large. It is best not to deceive and confuse ourselves with mere names, which only serve as a cloak for our ignorance.

The therapeutic results obtained bear out the views above enumerated. Whatever good is done, apart from the sheltering of the deceased members from cold, results from treatment of the associated morbid condition. The reported cures from use of the constant current, a happy condition by no means uniform, seem to tally with the probability of a peripheral nerve lesion as being a frequent cause of the symptoms.—*R. Van Santvoord, M. D., in Medical Analectic.*

ANTISEPTIC TREATMENT OF INTESTINAL AFFECTIONS.—In an article on Intestinal Antiseptics by D. N. Kinsman, M. D., appearing in the *Journal of the American Medical Association*, July 3d, 1886, the author points out that the natural processes of fermentation and putrefaction going on in normal digestion are so changed in dyspepsia and other forms of intestinal disease as to produce poisonous alkaloids which are the cause of the symptoms developed in such disorders.

The researches of Prof. Vaughn, of the University of Michigan, in which tyro-toxicon has been shown to be the cause of ice cream poisoning, which are still fresh in the minds of medical readers, have thrown still more light on the etiology of intestinal affections, and made apparent the importance of intestinal antisepsis as a method of treatment.

To facilitate such treatment we learn that Parke, Davis & Co. have recently added to their list an Intestinal Antiseptic Pill, the formula of which is as follows: Mercury Protiodide; 1-8 gr.; Podophyllin, 1-16 gr.; Aloin, 1-16 gr.; Ext. Nux Vomica, 1-16 gr.; Ext. Henbane, 1-16 gr.

RELATION OF DISEASES OF THE JOINTS TO LOCOMOTOR ATAXIA.—Though the joint affections so common in tabes dorsalis are the best known of all the nervous arthropathies, their relation to the others, their essential differences, and their relation to tabes itself, are still unsettled problems.

In order to clear up, if possible, some of the uncertainty, Rotter has carefully examined all the available records of cases. From a study of

74 patients, embracing 112 joint affections, he found that their clinical histories presented certain peculiarities.

Severe traumatism was seldom given as a cause. Minor injuries could more frequently be traced. All arthropathies of the lower extremities began while the patients were still able to walk; those of the arms while active motion was but little or not at all impaired. Most of them appeared in the ataxic stage.

According to Rotter, the earliest symptom is usually a painless swelling of the joint and surrounding tissues, subsequent to a serous or sero-sanguinolent exudate into the joint, and a dense edematous infiltration of the soft parts. Soon crepitation can be discovered, and remains. In benign forms the swelling disappears after weeks or months, and the parts return to the normal condition. In malignant forms there is rapid softening of the tissues with suddenly developing dislocations.

In marked contrast to the slow and painful course of arthritis deformans, tabetic arthritis is remarkable for its painlessness and its rapid course. In addition, the former never leads to such destructive changes.

From the foregoing, it is apparent that, clinically, the tabetic arthropathies are peculiarly independent affections. Anatomically, these diseases develop either as deforming inflammation, or as fractures of the articulations, but the bone destruction attains an extent seldom reached in ordinary arthritis deformans, and never following fractures immediately in healthy people.

The causes of these differences are to be found in the in-coordination of motion, and especially the analgesia, of the tabetic patients; for the analgesia conceals the existence of the joint disease from the patient until swelling, or even dislocation, makes them evident to the eye. Moreover, the analgesia explains the sudden and apparently spontaneous origin of the joint effusions. It can be demonstrated from the clinical histories that the swelling was preceded by certain changes in the joint. The dense edematous infiltration can be explained by the tearing of the capsule of the joint and infiltration of the neighboring deep connective tissue.

With regard to the alleged increased brittleness of the bones, Rotter shows that it is not a necessary consequence, but is frequently present. These three factors, analgesia, incoordination, and increased brittleness, explain all the variations which arthritis deformans or traumatic arthritis undergo in tabetic persons. It is not necessary that all three factors be present in every case, but analgesia is never absent. The latter can alone cause the peculiarity of the affection, whereas ataxy and increased brittleness must always be accompanied by it.

To these observations of Rotter, with whom in the main he agrees, Sonnenberg has added others, based on a study of 100 cases observed by himself, including about 200 joint affections of all grades of severity. He finds that the type of disease varies much, according to the period of the tabes in which it appears. Those appearing early, without symptoms of inflammation, have no history of injury, and are painless. It is remarkable that the benign forms, those with effusion into the joint and infiltration of the soft parts, almost always develop in several joints simultaneously. Slight causes can change them into the more malignant forms. Sonnenberg is induced to believe that the joint changes bear an intimate relation to the tabetic process, and he particularly emphasizes the not uncommon cases in which the upper extremities, or all the joints are involved.

In the treatment of such cases, operation is to be avoided, especially in the ataxic stage, and proper apparatus should be adjusted to protect the already affected joints.—*Schmidt's Jarbucher.*—*Quar. Comp.*

THE DIAGNOSIS OF FEBRILE DISEASE IN CHILDREN DURING THE EARLY STAGES. (Dr. N. Filatow in the *Archiv. fur Kinderheilkunde.*)—It is well known that children more often than adults suffer from attacks of feverishness—that some comparatively trifling ailment is accompanied by a sudden and erratic rise of temperature, which may puzzle both the friends and the medical attendant, and give rise to the suspicion that some zymotic disease is developing. Not only so, but feverishness may be present without any apparent reason whatever, the temperature remaining elevated for 24–72 hours, and the attack passing away without any clue having been obtained as to its cause.

In examining a feverish child with a view to discover the cause of its illness, it is absolutely necessary to strip it, so that every part of its body may be exposed to view, as it is quite possible to fall into a serious error in diagnosis if this be omitted. In some cases it is possible to make a diagnosis at once by examining the surface of the body, as, for instance, in the case of those diseases of the skin which may be accompanied by fever, such as (1) the inflammatory conditions, as erysipelas, erythema, or boils; (2) urticaria, erythema nodosum, and purpura.

It is not easy to overlook the characteristic wheals and papules of urticaria, or mistake this affection for any other, though possibly the superficial observer, on first seeing the fine papules, with much redness, which occasionally make their appearance on the face and forehead in this disease, might think he had a case of measles to deal with. An examination of the trunk and limbs would, however, set the matter at rest, as the pale wheals of nettle rash would probably be characteristic enough. It is, perhaps, more easy to overlook a case of erythema nodosum, especially when there may be a temperature of 101° or 102° F., and only a few of the nodes present. These are most common on the skin and extensor surface of the forearm, more seldom on the thighs, face, and back. When there is some fever, and the nodules situated over the anterior edge of the tibia, the case may be easily mistaken for one of periostitis, as there may be much swelling, redness and tenderness.

Purpura in its various forms is occasionally accompanied by feverishness, and though difficulties in diagnosis do not often occur, yet when there is high fever, with petechiæ, the question of hemorrhagic smallpox may arise. The author illustrates this by relating a case which occurred in his practice. A boy of two and a half years had high fever (104° F.), convulsions, and a purpuric rash covering his back and extremities. The boy seemed ill, and the possibility of the case being one of hemorrhagic variola was discussed, though well-marked vaccination scars were against this diagnosis. On the third day the temperature fell, and there could be no doubt it was not smallpox. The child was a weak and anemic one, and died a year later of tubercular meningitis. In some cases of purpura, the petechiæ make their appearance after the fever has lasted some days, and the possibility of typhus may then be raised. Occasionally relapsing fever is accompanied by petechiæ.

Difficulties in diagnosis may also occur where a high temperature is the result of an acute swelling of the lymphatic glands. The author here refers to an idiopathic swelling, which occurs apart from any primary irritation in the nasal, buccal, or palpebral mucous membrane, or of inflammatory processes in the throat or ear, and which affects the lymphatic glands situated at the upper part of the sterno-mastoid, behind the angle of the jaw, and just below the ear and mastoid process. It occurs most frequently in children of from two to four years of age. There is fever and swelling of the glands, which, in the course of a few days, reach the size of a walnut; they are tender, and often slightly red. In the course of five to seven or ten days the fever disappears, the glands remain enlarged for a few days, but the swelling generally disappears in the course of a few weeks. Occasionally, but not often, suppuration occurs. The nature of this affection is often misunderstood, and the case is supposed to be one of "mumps," though the diagnosis is not difficult if sufficient care is used. The swelling of mumps occupies the position of the parotid gland, that is, in front of and below the ear, and extending over the face; the glands which are involved in the inflammatory swelling are behind the angle of the jaw, and just below the mastoid. Moreover, in mumps the skin is edematous, and the limit of the swollen salivary gland ill-defined, while in the adenitis the skin is normal, and the limit of the glands can be distinctly felt. Mumps is mostly two-sided; adenitis only affects one side, and lasts three or four weeks. In mumps the temperature is rarely over 102°, in adenitis it is often 103°—104°.

Inflammations of the external and middle ear are both accompanied by feverishness. The diagnosis of otitis media is often difficult, as it is not easy to get a satisfactory view of the membrane in a child who is restless and unruly. It may be accompanied by cerebral symptoms.

In all cases in which there is an elevated temperature an examination should be made of the nose, as there may be nasal diphtheria without evidence of membrane elsewhere, or the child may be in the prodromal stage of measles or influenza.

The diseases of the mouth, which are apt to be accompanied by fever, are *erythematous stomatitis*, *aphthous stomatitis*, and *ulcerative stomatitis*. In the former the tongue and gums are abnormally red and swollen, while excessive quantities of saliva are secreted. It is common during the first few months of life, but especially during the dentition period; there may be convulsions and high temperature. It rarely lasts more than two or three days. During the cutting of the molars the feverish state may last longer, the temperature reaching 104°, while the mucous membrane of the lips, tongue and cheeks is covered with aphthous patches. Ulcerative stomatitis may be accompanied by fever, lasting seven or eight days. In all feverish conditions in children it is obviously necessary to carefully examine the fauces, lungs and heart.

Both acute and sub-acute gastric catarrh are sometimes accompanied by fever. The former is apt to supervene after the ingestion of improper food. The author relates how an attack of vomiting and high fever (104.5°), lasting several days, followed a supper at which a boy of twelve years consumed "much sausage and anchovies." A similar attack resulted from a meal of "berries" and "table-wine" in a boy of five years.

Attacks of sub-acute gastric catarrh, where there is vomiting, constipation, fever (99°—101°), and wasting, closely resemble tubercular meningitis.

Rickets, in an early stage, is also accompanied by an intermittent fever, but it is uncertain if this is due to the rickets or to some accompanying condition.—*Med. Chronicle, Quar. Comp.*

TREATMENT OF WHOOPING-COUGH WITH ANTIPYRIN.—Sonnenberg recommends antipyrin as the best remedy in whooping-cough. He has used it in seventy cases, and asserts that it surpasses in efficacy and utility all other remedies. He gives one-seventh of a grain to very young children, and gradually increases the dose according to the age of the child. To adults he gives 15 grains. The medicine is administered three times daily, and sometimes once during the night. Children take it readily when dissolved in a little water and raspberry juice. The remedy should be continued throughout the attack, the cessation of it being accompanied by exacerbation of the cough. The average duration of cases thus treated is three to five weeks, and it rarely happens that more than six or seven paroxysms occur during twenty-four hours. Under antipyrin the appetite and nutrition was found to improve. When Sonnenberg commenced this treatment at a late stage of this disease, he found that the paroxysms were at once reduced in violence, and that the expectoration was rendered more easy. In a few cases the good effects of antipyrin were not noticed until a few days after its use had been commenced. Collapse was never noticed. Five out of seventy cases treated with antipyrin had complications; two suffered from pneumonia, and one of these died. The hygienic condition of the patient should, of course, be attended to, but Sonnenberg says that though in the majority of his cases this was not possible, the curative influence of the drug was very definite.—*Medical Chronicle.*

NUTRIENT ENEMATA.—Professor Ewald, of Berlin, has recently made some careful experiments with different nutrient enemata, and has found that enemata of eggs were of decided service; and that they were as efficient and satisfactory without being peptonized as when they were subjected to this process.

SURGERY.

THE MANAGEMENT AND TREATMENT OF UMBILICAL HERNIA. (Mr. C. B. Keetley, Senior Surgeon to the West London Hospital, in *Annals of Surgery.*)—Almost all umbilical herniæ make their first appearance either in earliest infancy or late in middle life. A small minority of the umbilical herniæ seen in infants are herniæ into the stump of the umbilical cord, and are truly congenital; but the majority are not discovered by their parents until a week or two after birth, and therefore when the stump of the cord has withered up and left only the navel. But even this class of cases depend on a congenital defect. The aponeurotic layer of the abdominal wall must have been deficient. The ventral laminæ have probably failed to unite completely at this part of the length of the linea alba. Although this failure takes place close to the naval in the vast majority of cases, yet it sometimes occurs much higher or even lower.

This paper will confine itself entirely to the common form of umbilical herniæ. Its diagnosis is obvious. Its prognosis and treatment depend on each other.

When a student, Mr. Keetley was always taught that in male infants there is such a tendency to spontaneous recovery that a truss or belt and pad are superfluous, and, moreover, that there is a tendency to inguinal hernia which is liable to be increased by the use of any appliance pressing on the umbilicus.

Therefore the teaching then was to leave umbilical herniæ of male infants to nature. On the other hand, female infants were to be treated with a truss or belt and pad. He was also assured that, unless this pad were perfectly flat, it would enter the umbilical hernial opening and increase the size of it.

While all this sounds very reasonable and likely, it is suspected that it may, after all, be merely specious, and based not on experience but only on *a priori* considerations.

As the rule, rather than as the exception, he has found that where both umbilical and inguinal herniæ occurred in the same infant, the inguinal had preceded the umbilical; and generally both had appeared before any form of truss had been applied to either.

Moreover, in female, as well as in male children, there is a great tendency to spontaneous recovery. He is not, therefore, inclined to take sex seriously into consideration in deciding on the question of a truss or belt, but rather gives heed to the presence or absence of signs of digestive disturbance and abdominal pain and discomfort. These are often associated with umbilical herniæ in childhood, and the surgeon can scarcely ignore them even if he would.

With regard to the shape of the pad, almost all those supplied by instrument makers are rounded rather than flat. He has never seen such enlarge the hernial aperture. As a matter of fact they seldom, if ever, press into it. When the child sits up or stands, the contents of the rupture tend to press the pad away from the opening. When the child lies down, the pressure of the truss is relaxed by the position, unless the belt spring is so tight as to be uncomfortable. Most trusses are tighter when the patient is upright than when he is horizontal. He does not defend distinctly conical pads, but merely such as are gently rounded. A point really of the first importance is to keep the pad in its correct place, immediately over the ring. To do this, good strapping is generally necessary, even though the pad be attached to an elastic belt.

Is there ever justification for operating on children with umbilical hernia in order to obtain radical cure? Not generally, but some times undoubtedly. In some of these cases the hernial aperture is so large that one can scarcely hope to see spontaneous cure ever take place, and the history may make it clear that the rupture has been getting worse rather than better, perhaps for years, for sometimes, although the rupture is congenital, the patient is an adolescent. Recently Mr. Keetley saw such a case and will probably operate on it. The patient was subject to attacks of colic and vomiting, which she herself and her friends attributed to the rupture. Mr. Keetley is satisfied that her hernia can be cured radically and with safety; and considering her sex, the probability that she will marry some day, become pregnant, perhaps grow fat, while the rupture may increase to a dangerous as well as vexatious and distressing trouble—all these considerations impelled him to recommend an operation.

How should one operate on umbilical hernia of infants? It is seldom necessary to open the sac or the peritoneal cavity, and still less necessary to excise the sac. This is a consideration of first-class importance, calculated to go far to remove prejudice against and fear of the operation.

In the case of two children operated on October 6, 1886, he tried a new plan, based on Macewen's operation for inguinal hernia. Instead of simply invaginating the sac and pushing it straight back into the abdominal cavity (merely turned inside out and unopened of course) he, in the two latter cases, gently twisted the sac, passed a stout catgut ligature in and out through it, very carefully separated the peritoneum from the linea alba above the hernial aperture, passed a needle up into the artificial space thus made, and with this needle carried the catgut (already threaded through the sac) into the space and out through the linea alba. Then, on pulling the catgut tight, the twisted sac was, of course, pulled into the space between the peritoneum and the linea alba, reduced "*en masse*" as it were. The maneuvre of twisting the neck of the sac was suggested as a substitute for ligature, by Dr. C. B. Ball, of Dublin. The hernial aperture was, then, of course, free, and its edges had only to be refreshed and brought together with hair-lip pin and twisted cat-gut suture. The formerly mentioned catgut was fixed to the latter.

Both cases did perfectly well, excepting that one wound kept open and suppurated slightly for several weeks until the catgut suture came away. The other infant was able to bear a pad and sit up in a fortnight.

Mr. Keetley does not think these cases will ever relapse, for the natural tendency of umbilical herniæ is to recover spontaneously when placed under favorable conditions, and these cases were put under such conditions by the operation.

One thing might be urged against this plan of operation. There is always a point down toward the lower end of the sac where it blends with absolute intimacy with the skin of the navel. At this point he has never succeeded in separating the two. There consequently remains a little open passage at the lower extremity of each hernial aperture, which is otherwise closed. But this little opening has not in any of the four cases tended to get larger. It does not inconvenience the patient, and though it presents an impulse, it gives exit to no hernial tumor. He therefore is content to leave it to time. Even when excising the sac this point presents just the same difficulty to the surgeon, and, as it is situated close to the very edge of the aperture and blended with it, in fact, the effect of excising it is injurious to the neck of the sac, which one always desires to keep intact.

The great majority of adult sufferers are women, midle-aged or older. They are generally fat and have borne children. Although they form only a small proportion of the total number of cases which present themselves at a truss society or a hospital, they include a large proportion of the serious, difficult and deplorable cases. No other word than "deplorable" describes the condition of a poor woman with half her small intestines habitually in the sac of an umbilical hernia. Many cases approaching to this and some worse come to the truss societies. Total or partial reducibility, generally the latter, is common in these cases, in which respect they contrast with the umbilical herniæ of infants. The usual treatment is to fit on a pad or a plate or a bag, according to the size and condition of the protrusion, and to keep them in place with either a truss spring or a broad webbing belt, elastic or otherwise.

Unless it is a member of your own household or an exceptionally intelligent, obedient and manageable patient, do not order a truss, that is to say, a steel spring. Sooner or later she will meet a friend who will persuade her to take to a belt. Almost all women of the working classes prefer belts. They are very easy to wear, are soft, and the wearer is often happily unconscious whether or not her belt and pad are doing her good. If they do not hurt her she thinks they are all right, is content and hopes for the best. No wonder, then, that there are so many large and only partially reducible umbilical herniæ. The immense discs or plates of some of these pads and trusses are not required by the size of the hernial aperture, which is generally not very large. They are given for two reasons, (1) because they save the trouble of finding and supplying a truss which will keep a truss of moderate size in place, and (2) because the patients enjoy the feeling of having their stomach supported by a disc like a dinner plate or a saucepan lid.

When the hernia is irreducible, if it be small, Mr. Keetley orders a hollow pad moulded; but if it be large, a bag to lace up. Many patients are, however, used to the hollow "sauce-pan lid" as it may be called, and go about with their irreducible herniæ lying in a kind of concave nest which it makes for itself in the surface of a flabby abdomen, being pressed thereto by the huge concave plate.

Great are the sufferings, and dangers, and miseries of many of these patients; but the patients are seldom willing to be operated on for radical cure. This reluctance to decide on submitting to the operation may be partially due to two things: (1) This operation has been seldom strongly urged, and has been rather overstated than understated as to its dangers; (2) the worst of these cases can get so much benefit from diet, especially from the Banting system. This probably acts chiefly by reducing the fat in the omentum, mesentery, and about the abdominal viscera. It should be urged on all stout people with hernia, and the majority of people with umbilical hernia are stout. Banting says his own umbilical hernia disappeared while he was under treatment.

As to *the question of radical cure*, the vast majority of cases of umbilical hernia could be cured without any danger from the operation. There would be, he says, danger from the operator, from his assistants, from the nurses, from the patient herself. These dangers are real, though they are diminishing every day. But such dangers are quite microscopic when an operation is done with only one simple instrument like a knife or chisel, and when no one's finger, not even the surgeon's own, touches the wound; when also only one dressing is applied, and even drainage is superfluous. Hence the safety of tenotomy. Hence, also, that of osteotomy, for which all that is required to ensure success is found in a careful surgeon, experienced in antiseptics and moderately practiced in osteotomy.

But the radical cure of herniæ with excision of the sac and perhaps of a large quantity of omentum, with separation of adhesions, perhaps the insertion of peritoneal cavity, this is a very different matter. It must not be hurried; that would be to make failure sure. It may last a couple of hours. During all of that time several individuals have to share responsibility and keep up a sustained vigilance. However watchful over his subordinates the surgeon may be, he can scarcely follow their every movement, and attend to his own business at the same time. Damp sponges pass to and fro again and again, and various instruments, some not so simple as a plain and polished knife-edge. Of course this style of reasoning might be employed to prove a trip in a steamboat from Westminster to Blackfriars to be fraught with danger. But, on the other hand, steam navigation is much older than antiseptic surgery. However, just as steam navigation can be and is made safe enough for all practical purposes, so can be the radical cure of an irreducible umbilical hernia in a fat, middle-aged woman. But in order to make it safe, it is essential to approach it with the greatest respect and the strongest sense of responsibility.—*Quar. Comp.*

THE TREATMENT OF THE SAC IN STRANGULATED HERNIÆ.—(John Poland, F. R. C. S., in *Practitioner*): From the experience of late years in dealing with the abdominal cavity, the importance that was formerly attached to leaving the sac alone no longer holds good; nay, as we shall see, it is even unadvisable; and this can be stated as true even in the most simple cases, where the intestine has been reduced after external division of the structure. The most dangerous element in strangulated herniæ is now universally recognized to be the condition of the intestine or other contents of the sac. We shall thus readily understand why the sac should in all cases without exception be opened. Of course, the customary rule is to open in cases of long-standing strangulation and where omentum is present. It necessarily follows from this, and is a practical point of very great moment, that *only the slightest taxis is permissible* in attempts at reduction of the bowel before operation. There are no dangers now arising from wounds of the peritoneum to counterbalance such as might occur in prolonged or violent taxis, bruising of the bowel, extravasation from ulceration, etc. And there is this further reason: surgeons now make some slight addition to the usual operation of herniotomy, tending to a radical cure,—an addition in many cases that adds in no way to the risk of the operation. These new conditions, especially the latter, will, as pointed out by Sir William MacCormac in his opening address on Surgery before the British Medical Association at Belfast, 1884, induce surgeons to interfere surgically in cases where the symptoms of strangulation or incarceration are very mild.

As to the *modes of dealing with the sac* we have these—

1. Leaving it alone without fastening it up in any way.
2. Union of margins of sac with catgut, and skin united over it.
3. Torsion of sac.
4. Ligature of neck with excision of sac.
5. Ligature of neck of sac without excision.

1. Leaving the sac alone, whether it has been opened or not, is the course usually set forth in our systematic works on Surgery. In Mr. Birkett's article on *Herniæ* in the last edition of *Holmes' System of Surgery*, no mention is made of any other course. Sometimes the sac was plugged by the introduction of substances into it. The orifice of the hernial sac was often left to be plugged merely by a mass of omentum. This must in a very large number of cases have been but imperfectly accomplished.

We now know from the experience of the ovariotomists how important it is that the peritoneal cavity should be carefully and effectually closed by bringing the peritoneal surfaces into close contact. Why the peritoneum should be treated in a different manner in hernia it is difficult to understand. This reasoning alone should be sufficient to condemn the old course of treatment in uncomplicated cases.

2. Union of the margins of the sac by means of catgut sutures the

skin being united over this, is certainly a step in the right direction, by closing the peritoneal cavity and preventing extension of suppuration from the wound into its interior. It is far inferior in many respects to the methods to be described, but is applicable in certain cases,—for instance, in old strangulated umbilical or other hernias where the sac is firmly adherent to the skin, in very large hernial sacs, and in cases where the intestines are closely adherent to the sac.

3. Torsion of the sac was recommended in 1884 for the radical cure of hernia by Dr. C. B. Ball, of Dublin, at the meeting of the British Medical Association. He recommends the separation of the sac from the surrounding tissues; the sac to be then grasped with a clamp forceps high up aud several half-turns given; a catgut ligature then to be applied tightly round the neck.

The two special advantages which he claims for the operation are these: (1) a higher and thus more perfect closure of the peritoneum than can be obtained by ligature; (2) the twisting has the effect of tightening and throwing into ridges the peritoneum for a considerable area surrounding the abdominal opening. This he believes to be a matter of great importance, and, we must remember as Lawrence pointed out many years ago, that one of the most fertile predisposing causes of hernia is an abnormal laxity and fullness of the peritoneum in the neighborhood of the hernial opening. Dr. Ball has adopted torsion of the sac in only one case of strangulated hernia—a femoral.

This method would be applicable in a few cases of long-standing herniæ with wide orifices and where there is very great obesity; otherwise it does not appear to have any advantages in the cases we are considering over the method following.

4. Ligature of the neck of the sac, as high up as possible, with excision of the sac. This was first advocated on the Continent by Czerny, and is now extensively practiced both there and in this country, but more especially by the Liverpool surgeons. Directly the strangulated bowel has been reduced — after division of the stricture — the empty sac is separated by the fingers and forceps from the surrounding tissues and a stout catgut ligature applied to the neck as high up as possible. The sac is then cut away by scissors below the ligature and removed, and the wound closed in the usual way. This separation of the sac from the surrounding tissues is accomplished with the greatest ease in all cases of recent origin and in cases of femoral hernia.

The cellular tissue being but little disturbed, there is often no suppuration, and the wound unites by primary union. The peritoneum is completely closed by the ligature, bringing the surfaces into contact, besides causing a good deal of drawing together of the loose folds in the neighborhood. The site of the hernial orifice is thus sealed over in a few hours with lymph. In this manner no risk whatever is added to the operation.

In other hernias of older date the separation can not be effected without considerable difficulty, and might lead, if not carefully performed, to extensive sloughing and suppuration of the cellular tissue. This operation is therefore unadvisable for hernia of large size or for those of long standing. The writer has seen profuse suppuration of the wound take place after excision of one of these old sacs and also in some other cases, yet in none of them was there the slightest indication of septic peritonitis. The peritoneum is shut from the wound in a space of a few hours, and this soon renders it impossible for suppuration, however extensive, to pass into the abdominal cavity.

This closure of the neck of the sac has another great advantage; it effectually prevents all hemorrhage from the wound into the peritoneal cavity, and its possible septic influence on this cavity.

The more remote benefits from this mode of dealing with the sac are as follows:—(1) It holds out a great hope of permanent cure, not only in restoring the patient to a more normal condition, not only by removing a more or less perfect track along which a portion of intestine might again descend, this track being in fact composed of morbid and useless tissues, but also in producing a radiating puckering of the peritoneum round the hernial orifice and closing the orifice itself by dense cicatrical tissue, and thereby tending to prevent yielding again at this spot. (2) We do away with an indurated thickened mass, which often exists where the sac has been allowed to remain untouched, and hence the more perfect fitting of a truss subsequently, and increased comfort to the patient. In cases where the opening is large the pillars of the ring may be brought together by sutures without adding to the risk of the operation.

This mode of treatment, it is scarcely necessary to say, is prohibited in cases of gangrene, ulceration and extravasation of feces, dense adhesion of intestines to sac, etc.

5. Ligature of sac without excision, or, as recommended by Sir Wm. MacCormac, with partial excision,—that is, removal of a ringlike

process of the serous membrane from the neck. This may be performed in large inguinal hernias and in the congenital form—the latter only in younger life. In adults the sac is too intimately connected with the cord to permit of even this partial removal.

In conclusion, we may sum up briefly the advantages gained by *ligature of neck with excision of sac* in certain cases of strangulated hernia indicated above:—

Immediate—

(1) In many cases it does not add in any way to the risk of operation.

(2) It shuts off the peritoneal cavity in a few hours.

(3) It prevents hemorrhage into abdomen.

(4) It prevents septic peritonitis.

More remote—

(5) It promotes tendency to radical cure.

(6) It leads to more perfect adjustment of truss and comfort of patient.

The writer has before him a specimen of healed femoral hernia with the operation wound also healed, taken from a patient aged seventy-one, on whom Mr. Clement Lucas performed herniotomy with excision of the sac for strangulation. The patient died on the seventh day after operation from acute pleurisy and capillary bronchitis. The specimen illustrates very beautifully the result of the method of treatment by excision of sac, with ligature of neck in a *recent* hernia. Closure of the peritoneal aspect of the hernial aperture is seen to be perfect, no trace of a depression being visible here; it is quite smooth with a slightly radiated appearance. There is primary union of the surface wound.

THE OPERATIVE TREATMENT OF INTESTINAL OBSTRUCTION.—Dr. Rydygier narrates seven cases of intestinal obstruction, upon each of which he had performed laparotomy. The first case was one of obstruction due to a loop of intestine being strangulated by a pseudo-ligament. The band was divided between two ligatures, and the loop of intestine drawn out. The patient made a good recovery. The second case was one of ileo-cecal invagination. The operation was performed four days after the onset of the symptoms. The bowel was disinvaginated, but the patient succumbed a few hours after the operation. The third case was one of volvulus of the sigmoid flexure. The operation was performed on the fifth day, and the bowel untwisted. For the first two days progress was favorable, but afterwards head symptoms set in and the patient died apparently of tubercular meningitis five days after the operation. The fourth case was one of strangulation of a loop of small intestine through a sort of membrane which extended across the brim of the pelvis. The parts were not disengaged at the operation, and the patient died a few hours after. The fifth case was obstruction due to a perforation of the cecal appendix and formation of a fecal abscess. A piece of intestine had become glued down and constricted. The operation was performed on the sixth day. The abscess cavity was opened and the bowel liberated. The patient made a good recovery. The sixth case occurred in a new-born child. At the operation, a considerable portion of small intestine was found coiled up and glued together in such a way that there was complete interruption to the lumen of the canal. Twenty-five centimetres were resected. Death occurred a few hours after operation. The seventh case was one of obstruction due to pressure of a carcinomatous tumor upon the sigmoid flexure. The surrounding parts were found too much affected at the operation to attempt resection, so that an artificial anus was made at the lower end of the wound. The patient died the day after the operation.

In commenting upon the subject, the author depreciates delay in the treatment of all cases of obstruction when the symptoms point definitely to a sudden onset. Palliative measures, such as the stomach-pump, he regards as useless, and belives that so soon as both the public and the profession can be induced to believe in the comparative freedom from danger of the operation of laparatomy, cases will be early treated and better results will be obtained.—*Glasgow Med. Journal.*

TREATMENT OF GLEET.—Dr. Fred. A. A. Smith, Cheltenham, asserts that some years ago a captain in the army consulted him about a gleet he had had for a long time. Nothing seemed to do him any good; at the same time he was anything but a temperate man, and practically was a very bad subject for treatment. He ordered him an ordinary alum lotion to be used as an injection, and for medicine, acid nit. dil., *m* xv; dec. cinchonæ flav., f℥j, t. d. Returning home from his club in the evening, he took by mistake a dose of the alum lotion, and used the acid mixture as an injection. The consequence was that he suffered great pain for over half an hour, but cured his gleet. Noting this, Dr. Smith tried on his next case, acid nit. dil., *m* v; dec. cinchonæ flav., f℥j, as an injection, t. d., and found his patient got rapidly well, and has since used this in several cases with very happy results.

EDITORIAL DEPARTMENT.

J. F. BALDWIN, M. D., Columbus, - - - - EDITOR.

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COMPENSATION FOR TREATMENT OF PAUPERS.—The law in regard to compensation for professional services rendered to the poor (outside of the infirmaries), is acknowledged to be in a very unsatisfactory state, as the amount to be paid seems to be left to the judgment, or caprice, of the township trustees. It is probable that a Supreme Court interpretation of the law would materially change the custom in this respect, but no such interpretation has ever been rendered.

A suit has just been brought, by Dr. R. Harvey Reed, of Mansfield, in the Court of Common Pleas, to collect a bill of the character now under consideration. He will probably, almost certainly, be beaten in this court; in which case we sincerely hope he will take an appeal to the court of last resort.

At the last meeting of the North Central Ohio Medical Society, the following resolutions were unanimously adopted:

"WHEREAS, The law of Ohio provides for a reasonable compensation being paid to physicians and surgeons for professional services rendered to indigent citizens of this commonwealth, and

"WHEREAS, Many of these cases occur annually, to physicians throughout the State, and humanity demands that they receive proper care and treatment, and

"WHEREAS, The township trustees, whose duty it is to care for these indigent citizens, do, in many townships, discourage and cripple the proper attention to said citizens by either refusing to pay for medical attention to the same, or by reducing said medical bills to one-third or one-fourth of what would be considered a fair, reasonable amount, thereby either compelling physicians to take an unreasonably low compensation for their services or resort to the expense of litigation to secure reasonable fees, at an additional expense to the township as well as to themselves, therefore be it

"*Resolved*, By the North Central Ohio Medical Society, in convention assembled, at Mansfield, Ohio, this 30th day of December, 1887, that we deplore and condemn the habit and custom of township trustees in reducing medical bills, rendered for the treatment of indigent and needy citizens, to an unreasonably low compensation, and that we recommend said township trustees to adhere to the letter and spirit of the law providing for the care of said indigent citizens, and thus avoid unnecessary litigation in the settlement of these claims."

These resolutions were presented by Drs. R. Harvey Reed, Mansfield; I. A. Myers, M. D., Shelby; J. W. Craig, Mansfield; J. P. Cowan, Ashland; F. C. Larimore, Mt. Vernon; Geo. P. Sattler, Pavonia; E. Stofer, Bellville; J. Harvey Craig, Mansfield; H. H. Smith, Lexington; I. F. Markel, Mifflin; J. S. Stewart, Ontario, and A. H. McCullough, Mansfield.

A CRITICISM.—An esteemed correspondent writes as follows: "I have just got hold of Vol. 1 of the *American System of Gynecology*. Reading in it the History of American Gynecology, I find no notice of the application of electricity to extra-uterine pregnancy! As the third case belongs to Columbus and the fourth to Dayton, Ohio has some interest, and as this is one of the most important advances made in Gynecology of late years, and distinctively American, it is something *huge* to see all mention of it omitted in an American work by an American."

LECTURES ON INEBRIETY.—The president of the English Society for the study of inebriety, Dr. Norman Kerr, is to give the first course of medical lectures on the disease of inebriety and its treatment, in the hall of the London Medical Society, beginning Jan. 12, 1888. Dr. T. D. Crothers of Hartford, Conn., has been invited to deliver two lectures on the same topic, before the Albany Medical College, Jan. 24 and 25, 1888. These are the first medical lectures on inebriety, and the first efforts to present this subject in connected detail, by medical men, from a purely scientific standpoint.

"THE EPITOME," (Supplement to Braithwaite's Retrospect,) in its issue for November, 1887, says: "Our exchanges show that the report of the proceedings of the International Medical Congress, distributed by the *Medical Record*, has received a more extended acceptance or recognition by medical journals than any medical report ever published. The enterprise of William Wood & Company is worthy of this high compliment, and it will recompense them for arduous labor and money expended in not only sending slips to the English and American journals on application and without charge, but for the extraordinary outlay in having the report translated *in extenso*, and printed in the French and German language for gratuitous distribution to the medical journals throughout the world. The total expense, we have been credibly informed, of obtaining the report, preparing and distributing it in the manner indicated above, was a little more than $4,000,"

SUCCUS ALTERANS (McDADE).—The manufacturers of this preparation inform us that, owing to the claims made by some parties that they obtain this well-known preparation in bulk, it is important that physicians should know such claims are false, as Succus Alterans is only put up in pint, round amber bottles. This remedy has come into such general use by the profession, that care should be taken to secure the genuine, prepared by Eli Lilly & Co., which has given such good results and established the reputation it now enjoys.

SANDER & SONS' EUCALYPTI EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Greifswald.

FOR SALE.—Location, with or without property, on railroad, 22 miles of Columbus. Business $1,800 to $2,000 per year. Address, J. R. ANDERSON, M. D., 896 North High street, Columbus, O.

REVIEWS AND BOOK NOTICES.

Vick's Floral Guide.—A silver lining to every cloud! With the short dull days of early winter come the cheery holidays and Vick's beautiful annual, and lo! spring already appears not far distant. Wecan almost see the greening grass and the blooming flowers. In the way of Catalogue, Vick's Floral Guide is unequaled in artistic appearance, and the edition of each year that appears simply perfect, is surpassed the next. New and beautiful engravings, and three colored plates of flowers, vegetables, and grain, are features for the issue for 1888. Its lavender tinted cover, with original designs of most pleasing effects, will ensure it a prominent place in the household and library. It is in itself a treatise on horticulture, and is adapted to the wants of all who are interested in the garden or house plants. It describes the rarest flowers and the choicest vegetables. If you want to know anything about the garden, see Vick's Floral Guide, price only 10 cents, including a Certificate good for 10 cents worth of seeds. Published by James Vick, Seedsman, Rochester N. Y.

JUDGE WM. D. KELLEY, the protectionist leader in the House of Representatives, has written a plain statement of "How Protection Protects," which is likely to be the protectionist platform for the Presidential Campaign. It appears in the *Forum* for February. In the same number Senator Cullom has a paper advocating the Government control of the telegraph. Prof. John Tyndall writes about "The Sky;" Dr. Austin Flint about "The Mechanism of the Singing Voice," and Darius Lyman about "Impediments to Our Domestic Commerce."

Practical Microscopy. A course of Normal Histology for Students and Practitioners of Medicine. By Maurice M. Miller, M. D., Director of the Department of Normal Histology in the Loomis Labratory, University of the City of New York. Illustrated with one hundred and twenty-six photographic reproductions of the author's pen drawings. New York: Wm. Wood & Co., 1887.

We know of no book equal to this for students who wish to take up the study of histology during vacation, or for practitioners who, having had no labratory advantages during pupilage nor time now to devote to work in post-graduate schools, still desire to gain some knowledge of microscopy for its practical uses. The book assumes that the reader has a fair knowledge of gross anatomy, but knows nothing of histology. The illustrations are fine, and are decidedly refreshing, in that they are out of the stereotyped assortment which have done service for so many years in other publications.

A Practical Treatise on Materia Medica and Therapeutics, by Roberts Bartholow, A. M., M. D., LL. D., Prof. of Mat. Med., General Therap. and Hygiene, in the Jefferson Med. College, Philadelphia, etc., etc. Sixth edition, revised and enlarged. New York: D. Appleton & Co. Columbus: Geo. H. Twiss; 8 vo.; pp. 802; cloth; $5. 1887.

This work is an epitome of all the latest researches in Materia Medica and Therapeutics. The subject matter is arranged with that precision and elegance characteristic of the learned author. That a new edition of this work has been demanded, on an average, once in every two years, speaks more for its value and popularity than anything which we can write.

COLUMBUS

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COMMUNICATIONS.

BRIGHT'S DISEASE.

BY HUGH HENDRIXSON, M. D., COLUMBUS, O.

[Read before the Central Ohio Medical Association, March 1, 1888.]

In the Book we read of a man who said "There is no new thing under the sun." Did he live in the 19th century A. D., instead of the 10th century B. C., he would doubtless modify that statement, or at least he would explain if he were a member of the medical profession.

That microbes and resulting sepsis existed in the days of Solomon is doubtless true, but the thing "new under the sun" is that wounds and diseases are now treated with reference to their existence.

Again, it has ever been fashionable to regard subjects we do not understand as mysteries. And some of our sainted mothers and dignified fathers in times past have closed the argument, and for a time, at least, blocked the avenues of investigation, by saying these things were never intended for man to know.

But, gentlemen of the medical profession, we ought to thank Him who made microbes and worlds that the time has come when we have passed out of the long, dark night of incantations and laying on of hands into the gray morning of scientific thought, and are beginning to feel something of the glowing warmth of the brighter rays of investigation. That which our fathers were content to call a mystery, we are coming to believe consists only in our want of understanding. Ruskin said, "I do not wonder at what men suffer, but I do wonder often at what they lose."

If I place two equivalents of hydrogen and one equivalent of oxygen in a vessel, I will not only have a mixture, but by chemical affinity I will have a new compound—water. Again, by a process called electrolysis, this water is separated into its original elements. But, who can tell the how or the why? So it is with the etiology of disease. We can often trace effect back to cause; but what combination of forces or circumstances produced the cause is where we often find ourselves wandering about in the dim morning light of etiological thought, and are too apt to fall back upon the night of reason and say it is a mystery.

Now, when I attempt to study the etiology of acute or chronic albuminuria, or Bright's disease, I am about in the fix I was while attending college, when Prof. Merrick asked me, "How is it that a buzzard can sail through the air without flapping his wings?" After a moment's thought I answered, "I do not know." His reply was, "Neither do I." So it is now if I were asked to explain many scientific truths. Yet, I repeat the thought, I believe that science has emerged from its long, dark night, and that beams of scientific truth are streaming into our thought world so that the morning light appears; and if we cannot by it discern the why or the how electrolysis separates a compound into its original elements, nor can see clearly the details which make up the etiology of disease, we need not despair, for the morning light is breaking and soon the noonday of scientific investigation will illuminate the dark places in the world of etiological discovery.

Notwithstanding we cannot understand all that pertains to the presence of serum albumen in the urine pathologically, it is still worthy of our most earnest thought and diligent research. That albumen is occasionally found in the urine of healthy individuals, is no more regarded as a physiological curiosity. That a certain number of individuals will, under mental strain, severe physical effort, profuse perspiration, or intense emotion, show marked traces of albumen in the urine, is quite as well understood; yet, if there are no casts or other evidences of renal disease, we do not call it Bright's disease. There must be some detritus of cell destruction to constitute disease of the kidney.

It is asserted that the epithelial cells covering the glomeruli are similar to the endothelial cells of serous membranes; hence, we would expect that the fluid which passes through the glomeruli would have the same qualitative composition as that which passes into serous cavities. I believe it is well known that serous fluid contains albumen, together with a due proportion of the salts of the blood.

It is stated as well known, also, that the greater the pressure during filtration the larger the amount of filtrate obtained, and proportionally less amount of precipitate. Physiologists tell us that the blood pressure is greater in the glomeruli than in any other capillary system in the body. If that be true, then we would expect in the normal action of the kidneys a large amount of filtrate and a small per cent. of albumen. We are also told that the glomeruli are the only capillaries in the body directly covered by epithelium. If that is also true, we would infer that they have some special function, possibly of preventing serum albumen from escaping from the capillaries. I believe that is the doctrine held by Conheim and others. Senator and others hold that serum albumen in small quantities is a natural ingredient of healthy urine, and so with grape sugar. So that we may know the simple presence of small quantities of sugar or albumen in the urine is not regarded as proof of morbid changes in the kidneys.

But the question comes to us how much? Is it persistent? Are there other indications, chemical or microscopical, of kidney disease?

I have said that investigators have ascertained that arterial pressure, by muscular activity, elevation of temperature, as shown by Posner's method (boiling the kidney), etc., causes the escape of albumen from the glomeruli. Also, the same methods of investigation have shown that decrease in arterial pressure causes venous hyperemia, and thereby frequently albuminuria.

Mendelson, by experimentation, as reported by Belfield (Wood's library) from *American Journal Medical Science*, October, 1883, shows that:

1. In fever the kidney undergoes diminution in bulk.
2. This diminution is due to contraction of the walls of the blood vessels.
3. It is constant and progressive, proportionate to the intensity of the fever.

Therefore, we learn from these facts that if by fever or any cause the kidney is diminished in size, and thereby, in part at least, there is lessened arterial pressure in the glomeruli, we may expect some degree of albuminuria.

I remember a patient in my practice about 14 years ago, in whom leukemia was well marked, and albumen constant though not in large quantities. Her trouble began in the latter months of gestation; she was delivered of a healthy babe, but she died of exhaustion six weeks afterward. There was no microscopical examination of the urine or of the blood. In the absence of proof of disease of the kidneys, I am now led to believe that the presence of albumen was due to diminished blood pressure. In these cases, according to Posner, the albumen is found in the tubules, the result of venous hyperemia, especially in the medullary portion of the kidney. In short, venous hyperemia causes more or less edema which is, of course, the transudation of water, salts and albumen from the capillary veins into the surrounding tissues. Let us keep in mind that the tissues surrounding the veins of the kidney are principally composed of tubules, and as the transuded fluid, etc., escapes into them they are necessarily mixed with urine.

But, gentlemen, in studying Bright's disease, we must not jump at conclusions, either from the presence of albumen or hyaline casts in the urine, but must take into our process of diagnosis, arterial pressure, venous hyperemia, resulting it may be from disease of the heart, impairment of respiration, thrombosis or other obstruction above the entrance of the renal vein, disease or injury to the nervous system, especially that portion of the brain (4th ventricle) which effects the splanchnic nerves, disease of the nervous system, whether well understood or not, as tetanus, epilepsy, chorea, delirium-tremens, emotional excesses, etc., always, says Belfield, show albumen in the urine, most of which is produced by decrease of arterial pressure. Among English authors, Sir Andrew Clark believes much in hepatic derangements, which are often the cause of pathological changes in the blood and consequent albuminuria, and he thinks a persistence of such hepatic derangement may be followed by Bright's disease. Also, from the same reasoning, he makes what he calls "digestion albuminuria." At any rate, his reasoning shows that qualitative changes in the constituents of the blood may produce albuminuria without disease of the kidney.

But quantitative changes in the relative proportion of blood ingredients may cause chronic albuminuria, for all from whom I read agree that the amount of albumen which filters through a membrane increases as the albumen and salts in the filtering fluid increase. You can readily see that digestion must play an important part in the blood changes which allow albumen to be filtered through the membranes of the glomeruli.

This brings us to consider, after having so imperfectly pointed out, how under some circumstances serum albumen can get into the tubules from the capillary network surrounding them, or from the capillaries composing the glomerules. In the former it must be from disease and desquamation of the epithelial cells lining them; in the latter, by diseased condition of the capillaries of the glomerulus, so that it is possible renal disease may be the result of pathological changes in both tubules and glomeruli.

Whether degenerative changes of epithelial cells in the convoluted tubes are sufficiently established to be a cause of chronic parenchymatous nephritis is as yet in doubt; it needs more light from the day beams of scientific investigation. But the same degenerative change when ascribed to the epithelial cells covering the glomeruli is now a popular idea, and generally believed to be sufficient if persistent to account for chronic albuminuria. Perhaps the most familiar example is that variety known as an amyloid kidney. All the causes of pathological albuminuria are by no means known, hence investigators are still crying, "*licht, mere licht.*" But while albuminuria usually results from diseased tubular epithelium, or amyloid degeneration of the glomeruli, cases are said to occur in spite of these, for no albumen is found in the urine.

We have no disposition to prolong this introductory to this most serious malady further than will open up a field for the pathological study of this too little understood and too common and fatal disease. But before leaving this phase of the disease, allow me to mention that the variety known as interstitial nephritis is more incurable than parenchymatous or the amyloid variety, because the secreting substance is thoroughly destroyed; that it is more insidious in its operations because of so little impairment of functions elsewhere, and that there are less violent initial symptoms of diseased kidneys.

The amyloid, lardaceous, or waxy kidney, because of its supposed resemblance to lard or wax, is said to have its chief cause in protracted suppurative diseases. Pathologists claim there is a principle in the blood named by Seegen "dystropodextriu, a substance which agrees with amyloid material in its most specific characteristics."

Now then, in order not to be tedious, let us summarize some points in diagnosis by saying, in chronic parenchymatous nephritis we suspect the large white, pale or smooth kidney by the increase for a time of amount of urine, its low sp. gr., declining health, sluggish mind, appetite poor, anemia coming on with a light mud-colored skin, and early in this form of this dreaded disease we see more or less edema about the face, ankles, etc., and later on general anasarca. Then, and sometimes not till then, do we look for albumen, casts and detritus of cell destruction in the urine. Though I am glad to acknowledge that in the past ten years the profession, with better chemical knowledge and microscopical advantages, are coming to be more familiar with the early symptoms of this and other formidable diseases. Then when we have ascertained that our patient has Bright's disease, we may be curious enough (many are not) to differentiate the kind.

Interstitial nephritis, sclerosis sometimes called because granular, contracting, etc., like sclerosis of the liver—because of inflammation of the connective tissue and subsequent atrophy due to contraction of the new elements. Dickinson says this form of renal disease is most frequent at fifty, and rarely before twenty years of age, and gives as a probable cause social evils, lead poison, etc. Bartholow says that he has maintained for many years that interstitial nephritis frequently follows the administration of oils and balsams in the treatment of catarrhal affections of the urinary passages. Liebermeister and Bartels have the same idea, that of supposed transference of the catarrhal process from the bladder to the kidney.

In reference to the treatment much depends upon our knowledge of the causes which produced the disease. If syphilitic, plumbic, or other causes that may be removed by proper remedies, much can be done by way of medication. And Bartholow speaks highly of the chloride of gold, or of gold and sodium. Arsenides, etc., intended to arrest the hyperplasia of connective tissue, should be prescribed with hope, but, perhaps, with not as much confidence as John G. Thompson used to claim political results in Ohio. However, remedies used with a view of removing causes, together with ferruginous tonics, and aids to digestion so that nitrogenous substances are better prepared for assimilation, together with dry warmth, will probably prolong life, but when any form of Bright's disease becomes chronic, and diuretics become necessary, as they frequently do, the choice must be with reference to whether there is too much arterial pressure or venous hyperemia, or whether certain diuretics will cause arterial pressure and consequent venous hyperemia, for when we have much edema it is presumed there is venous hyperemia, and theoretically we should give some of the potassa salts, pilocarpine and warmth and not digitalis; yet some authors prescribe digitalis with marked increase of diuresis.

I believe among the latest, from Russia, is the *cockroach*. I believe when the disease has advanced to a time when such bugs as cockroaches and cantharides seem necessary, we might as well sing with Shelley:

> How wonderful is death !
> Death and his brother sleep !
> One pale as yonder waning moon,
> With lips of lurid blue ;
> The other, rosy as the morn
> When, throned on ocean's wave,
> It blushes o'er the world ;
> Yet both so passing wonderful.

A Practical and Successful Mode of Disinfecting the Room in Case of Cancer—Dr. H. Gerould, of Cleveland, O., writes that from September, 1886, until March, 1887, he had in his house, and under his daily care, a patient with uterine cancer. To counteract the offensive odor of the disease he made repeated experiments with the prominent disinfectants. The following proved to be all he could desire, viz.: 3 drs. of potassium nitrate dissolved in 8 ounces of Platt's chlorides, full strength. In this he saturated thin muslin (cheese cloth), then dried it thoroughly. When it was necessary to clense or purify the room, he burned small strips of the cloth on a shovel in different parts of the room and under the bed clothing. The effect was magical. Almost instantly all offensive odors disappeared. This was repeated when necessary, the potassium nitrate being used to aid combustion. The result was such that no discomfort was experienced by the attendants, and no offensive odor could be detected in the adjoining rooms. This was daily remarked by friends. The undertaker said it was the first case of death from cancer where he could detect no trace of the disease. This method of disinfection, the writer adds, would be equally efficient in all contagious, pestilential, or infectious disease.

To Paint a "Black Eye."—A writer in the St. Louis *Medical and Surgical Journal* says: "For "black eye" there is nothing to compare with the tincture or strong infusion of capsicum annuum, mixed with an equal bulk of mucilage of gum arabic, with the addition of a few drops of glycerine. The mixture should be painted over the bruised surface, a second and a third coating being applied as soon as the first is dried. If applied immediately after the injury is inflicted, it will almost invariably prevent discoloring of the tissue. The remedy is also of value in rheumatism, sore, or stiff neck."

FRACTURE AND DISLOCATION OF THE SPINE

BY ISAAC W. CHISHOLM, M. D., NEW CONCORD, OHIO.

Fortunately, fractures and dislocations of the spine are accidents of rare occurrence, for in a large majority of cases they prove fatal. Owing to the limited motion of the vertebræ, through their being so firmly bound by strong ligaments and powerful muscles, it is natural to infer that a dislocation of these bones would be of rare occurrence, and it has even been wholly denied by some surgeons, yet from recorded cases it has been clearly shown that these accidents may and do occur—the causes producing both dislocation and fracture being so closely allied that they may be said to be identical; in fact, they may all be summed up in two words—extreme violence.

The following are the generally accepted symptoms of dislocation and fracture of the different parts of the vertebral column:

If fracture or dislocation occur above the origin of the phrenic nerve, so that pressure is made upon the spinal cord, there is a disturbance of respiration, and death usually closes the scene.

In fracture of the dorsal vertebræ, unless very high up, the upper extremities will be free from paralysis; in either case the bowels will be stricken with torpor, being unable to expel their contents, and the patient's distress will be greatly increased by the accumulation of phosphatic matter in the urine, causing chronic inflammation of the bladder.

Fracture and dislocation of the lumbar vertebræ cause, in the lower extremities generally, a cessation of volition and sensibility, varying, no doubt, with the direction in which the vertebræ may be thrown, whether forward or backward; and authors generally state that the feces pass involuntarily, although I think I am justified in saying, from the following case, that the very opposite (extreme torpor) may happen—yet it may be an exceptional case, for in surgery we sometimes have to be governed by exceptions, or anomalous cases.

In the aggregate, I think we are safe in stating that if fracture or dislocation of the vertebral column occur above the origin of the phrenic nerve, thus causing pressure upon the spinal cord, immediate death will result; whereas, if the injury be inflicted in the lower portion of the dorsal, or along the line of the lumbar vertebræ, it will cause paralysis of the lower extremities, accompanied by incontinence and constipation, as well as involuntary discharges from the bowels.

The prognosis of both fracture and dislocation of any part of the spinal column should be looked upon with grave apprehension. "Few persons," says the distinguished American surgeon, Professor Gross, "ever recover."

As to the treatment of that class of injuries now under consideration, nothing would be more difficult, perhaps, than to lay down a methodical procedure; so difficult would it be, that he who should attempt it would in all probability arrive at the conclusion that it was one of the grandest failures he ever made.

In no case, perhaps, can nature assert her superiority over those of us who may be called in to play the part of physician, surgeon, or both, than in the treatment of injuries of the spine. In my opinion, Professor Gross never spoke a greater truth than when he said, "Time and a masterly inactivity will accomplish more than all the interference of the best surgeons, except that when the symptoms are well marked, and there is danger of the patient perishing, an attempt, however desperate, would be perfectly justifiable and proper; for," he says, "if we succeed, we obtain a victory; if we fail, we cannot but hasten an occurrence otherwise inevitable."

The greatest danger to be encountered, no doubt, in the majority of cases, is the too frequent annoyances of the meddlesome surgeon, even to the oft-repeated taking of the temperature, feeling of the pulse, counting the respiration, waking the patient for the administration of either food or medicine, repeated inquires as to their condition, all of which tend to harass the sufferers and add to their already over-excited nervous system.

I was called to attend the following case, and made a report of it to the Cincinnati *Lancet and Clinic*, one year after the accident, September, 27, 1879.

Charles G. G——, aged ten, residence New Concord, O., attended a soldiers' reunion in the city of Zanesville, O., September 19, 1878, and while seated under the speakers' stand the structure gave way, the timbers striking him in such a manner as to throw his head violently forward and downward between his legs. When extricated, his eyeballs were protruding from their sockets, and his face congested to a purplish hue, presenting altogether a ghastly appearance.

On being taken to the house of a friend, Drs. Oatley and Culbertson were called, and, in consultation with other distinguished surgeons of Zanesville, they found, upon examination, a dislocation and fracture of the third lumbar vertebra, it being thrown backward. Erichsen says he knows of no case where the lumbar vertebræ have been dislocated unless attended with fracture; and in accordance with such high authority I think we are justified in stating that it was so in this case, although a positive diagnosis was impossible. Some, however, take the position, I believe, that the force required to produce dislocation of this character is so great that it would be impossible for a dislocation to occur without also being attended with fracture, and in this case the fracture occurred, we think, in the body of the vertebra, as shown in the cut.

On October 2d he was brought to his home (New Concord, O.), two weeks after receiving the injury, and placed in my charge, Dr. Oatley accompanying him, and informing me of the great difficulty of obtaining a passage from the bowels. We concluded to try croton oil suspended in castor oil, and injections of soapsuds and turpentine, but these had little effect. After frequent administration of the oils I abandoned the course, as it sickened him, causing violent vomiting, which was attended, however, with some beneficial results, as the act of vomiting caused small portions of fecal matter to be thrown down into the rectum, whence I could remove them with my finger. I concluded to use injections and my finger, getting away all I could in this manner, and abandoning all physic.

About every ten days he would be attacked with nausea and vomiting, the pulse would become greatly accelerated, and the temperature would rise to 105° F. I concluded to try the experiment of feeding him entirely on "slops" or fluids, but this not having the desired effect I gave orders to administer *no food whatever* at those periods, and applied mustard and hops to the bowels, as they became at those times extremely tender and *sensitive* to the touch. As there was retention and incontinence of urine I gave him for a while fluid extract of buchu, citrate of potash, and sweet spirits of nitre to assist the functions of the kidneys, hoping also to effect a reduction of the temperature. To my great satisfaction the irritability of the stomach, together with all the other untoward symptoms, were cut short, the tongue commenced to become clean, and he began to have a mdoerate desire for food. I noticed that previous to one of these attacks the tongue would become coated, his desire for food would begin to lessen, and there would be an in increase of albumen and urea in the urine. I would immediately order no food to be given, and apply the mustard and hops to the bowels (abandoning all medicines that I had been administering for the purpose of assisting the function of the kidneys and reduction of the temperature), relying solely and wholly upon the total abstinence from food of any kind, and allowing him to drink all the water he desired, which seemed to accomplish the purpose which I intended most admirably.

Some time in January following he was seized with violent spasmodic contractions of the limbs, so that they would be almost drawn to his chest, and at times the muscles of his face, arms, and neck would be affected, causing him to be tossed about involuntarily. At one of these periods his breathing became involved, causing him to utter at times, "I can't get my breath;" but, fortunately, this was the only time in which respiration became implicated.

I applied a plaster-of-Paris jacket about three months after the injury, but was compelled to remove it on account of one of those "sick spells" coming on, necessitating the local application of the mustard and hops. For the nervous twitchings (herein mentioned) I gave the "bromides" singly and combined, and sometimes in addition with tincture of valerian, but obtained better results from the administration of tincture of valerian alone. He seemed to suffer greatly for the first two or three months, when he would moan in the most pitiful manner. For this I gave him McMunn's elixor of opium at regular intervals, and with good effect.

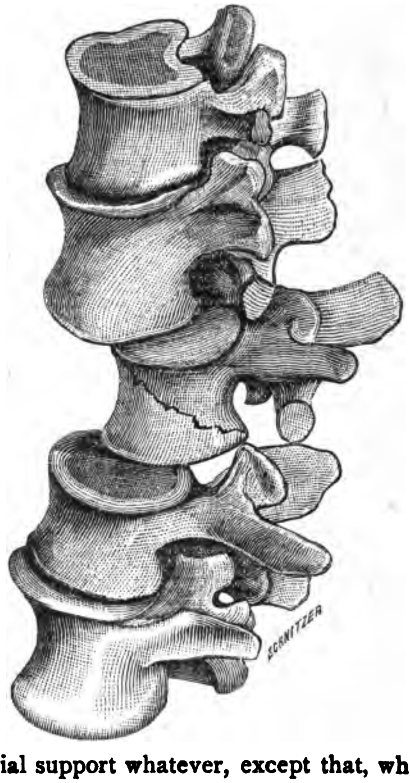
The whole time I had to use the catheter to draw off the urine, and also means to empty the rectum. This was continued for six months, when nature was so restored that all artificial means were abandoned.

As soon as the weather would permit, I placed him in a chair, and with his head uncovered took him out of doors, and placed him in such a position that the sun shone directly on him, and I noticed, after a few days, the red tint returning to his pale and wan cheeks. When the weather became inclement, as it frequently is in the early spring, he had to remain in his room. The red hue vanished from his cheeks and he became as pale as ever; but on the return of fair weather I repeated the *sun-bath*, when the red tint or healthy tinge could again be seen returning.

His toes were contracted, and I made for him a pair of shoes with very stiff soles, with lacing to the points of the toes. By main force I straightened his toes, and by lacing the shoes tightly upon them I was enabled to retain them in their proper position. I then commenced standing him against the wall, and by supporting him well under the arms he was enabled to take a few steps, until finally, after several weeks, he was enabled to walk across the room by supporting himself with the table and other articles of furniture in the room. From this on he improved rapidly, being enabled to go around, with the assistance of crutches, in a couple of months, and one year afterward was enabled to take part in the sports of his playmates (of course in a limited degree). He was entirely devoid of sensation over the hips and posterior portion of the limbs and feet, except over the internal malleolus and the internal cuneiform bone of the left foot.

When he received the injury there was some lateral dislocation of the verterbræ besides dislocation backward. Nature seemed to have made a reduction of the lateral dislocation, as there was no attempt made to reduce it, and the vertebræ now present the appearance (as shown in the cut) of a dislocation backward only.

He is now (nine years after receiving the injury) able to act in the capacity of "salesman" in his brother's confectionery, and is enabled to go around without any artificial support whatever, except that, when he walks long distances, he resorts to the use of his crutches.



The urinary and bowel difficulties have passed away, and sensation is gradually returning to hips, limbs, and feet, and my opinion has always been that, as he grew, the vertebræ would expand or grow, and that when he arrived at adult life, sensation would be completely restored; but time only will be able to verify this prediction. He has grown and developed as well as other boys, and I see no reason why my prognosis may not be verified.—*Med. Record.*

NOTE ON INTUBATION.

BY J. F. BALDWIN, M. D., COLUMBUS, OHIO.

In the December issue of the JOURNAL I reported, with remarks, two cases of intubation—both terminating fatally. I am now able to report ten additional cases:

3. A son of G. R. W.; aged 5 years; seen in consultation with Dr. J. E. Overly, of Columbus, December 6. Membranous croup; tube remained in for six days; recovery.

4. A daughter of J. C. C.; aged 5 years. Membranous croup; introduced tube December 19; assisted by Dr. W. H. H. Nash; removed tube December 24; recovery.

5. A son of H. C.; aged 6 years; diphtheritic croup; seen with Dr. J. C. Kroesen, January 2, 1888; removed tube January 7; death occured three days later from pneumonia.

6. Daughter of R. W.; aged 3 years; membranous croup; seen with Dr. C. M. Bethauser, January 10, 1888; removed tube January 15; recovery.

7. Daughter of T. C.; aged 2 years; membranous croup; intubated, assisted by Dr. J. W. Wright, January 22; dyspnea was at once relieved, but pulmonary edema suddenly supervened 20 hours later, with death in about 3 hours.

8. Daughter of Mrs. P.; aged 3 years; membranous croup; seen with Drs. McKinley and Agler, January 26; death occurred January 29, from broncho-pneumonia.

9. Daughter of Mr. B.; aged 6 years; seen with Drs. Gunsaulus and Gay, January 27; diphtheritic croup; removed tube February 1; recovery.

10. Son of H. S.; aged 3 years; seen with Dr. Giffin, January 29; as the tube for that age was in use in case No. 8, I introduced the size for

two years; this relieved the dyspnea, though there were evidences of some obstruction below the tube; about one hour after its insertion the tube was coughed out, together with a large quantity of mucus; respiration remained easy for about 12 hours, when intubation was again required, and the proper size tube inserted; this gave relief, but again accumulation took place below it, and it was removed in about 20 hours; 10 hours later it was re-introduced, but the relief to dyspnea was not very decided, as the lungs were rapidly filling up, and it was removed a few hours later (January 31), death occuring soon after.

11. Son of Mr. L; aged 6 years; seen with Dr. Jewett, of Hillard, O., February 13; membranous croup. Patient was so nearly dead as to be resuscitated, after intubation, only after repeated hypodermic injections of ether and whisky. Finally rallied, but died in 36 hours of broncho-pneumonia.

12. Son of P. M.; aged 3 years; seen with Dr. Gay, March 11; diphtheritic croup. This case had been marked from the outset by great prostration. The dyspnea was completely relieved by intubation, but the symptoms of exhaustion progressed, and death ensued in about 30 hours.

Result: Thirty-three per cent. of recoveries.

So far as I can learn no other cases of intubation have occurred in this city or vicinity.

A BUSY PRACTITIONER.—Dr. Cotting, of Boston, in relating his personal reminiscences of fifty years' practice, says: "The greatest number of professional visits to separate houses I ever made in one day was forty-three (a few of the houses visited having more than one patient.) It was one of the longest days of summer, and there was no time to rest, from early dawn to late at night. I once attended four births, in different parts of the town, within twelve hours; between twelve at night and twelve at noon following. It happened to be a February 22d, and the three boys were each called George Washington, while the girl received the name of Martha. The mothers were unknown to each other."—*Boston Medical and Surgical Journal.*

IT is perhaps not generally known that Ricord, the pioneer of syphilographers, is still alive and an active worker in medicine at the good old age of 87. His interest in medicine is as keen as ever, and he is surrounded in France by a group of pupils and admirers.—*Medical Review.*

SURGERY.

INTUBATION OF THE LARYNX, ITS ADVANTAGES AND DISADVANTAGES, WITH STATISTICS OF THE OPERATION. (Dr. E. Waxham, of Chicago. *Med. Record.*)—While strongly advocating intubation, the writer would not overlook its disadvantages. The operation is a difficult one in its performance. The soft tissues may be wounded, or the trachea perforated. It is more difficult to extract than to insert the tube. A serious trouble may ensue from the difficulty of swallowing when the tube is in place. These are the dangers. None are so grave that they cannot be overcome.

On the other hand it has many advantages over tracheotomy. It can be done almost instantly. There is no loss of blood, no pain, no shock, no open wound with the possibility of septicemia or erysipelas. There is no drying of mucus in the tube, and no necessity for cleansing the tube. Less attention is required in the after-treatment. Finally, we can save as large a number of adults as, and a much larger number of children than, by tracheotomy.

After presenting a series of statistics, the writer closed with the statement that intubation has been performed one thousand times within two years, and that two hundred and sixty-nine lives have been saved from certain death.

Dr. Charles G. Jennings, of Detroit, Mich., expressed high appreciation of the labors of Dr. O'Dwyer and Dr. Waxham, and believed this method to be of great value. His own experience; however, had led him to prefer tracheotomy. His 36 tracheotomies had been followed by 17 recoveries, while he had applied the tube in 12 cases without a recovery. Dr. Waxham's statistics contain about one thousand cases, with twenty-six per cent. of recoveries. He believed that certain operators in both operations have records far above the average, and that the successful tracheotomists have a larger proportion of recoveries than the physicians performing intubation who rank as the most successful. He believed that the personal equation is an important element in considering the comparative value of the two procedures.

Although intubation possess the advantages alleged in the papers read before the Section, it remains true that tracheotomy has advantages which should not be forgotten. After an incision the trachea is accessible for the removal of membrane and dried mucus, and direct medication by instillations and powders. Adequate nourishment after intubation is almost impossible, while there is no such difficulty after tracheotomy.

An obvious advantage of intubation is that it can be performed by many physicians who would not undertake a tracheotomy, and in this way relief, impossible otherwise, will be afforded in a great many cases. His own experience, however, leads him to urge tracheotomy in all cases offering reasonable chances of success, and to reserve intubation for the cases in which operative interference will give nothing more than euthanasia, and for those patients whose parents refuse consent to tracheotomy.

Dr. T. J. Pitner, of Jacksonville, Ill., questioned the correctness of Dr. Waxham's closing statement that the 249 cases of recovery following intubation were so many lives saved by the operation. This assumes that all cases of stenosis from croup or diphtheria are, without operative procedures, necessarily fatal. He did not, however, question the utility and great importance of this operation, which appears to him to be preferable to tracheotomy.

Dr. Northrup stated, in answer to questions, that in 33 cases he had never met the slightest difficulty in inserting the tube, and had not failed in a single case to fully and promptly relieve the dyspnea. He had met with no accident, and probably gentlemen present had in the aggregate used the tube several hundred times and had never met with untoward accidents. He thought the only real drawback to the success of intubation lay in its interference with feeding. It is sometimes difficult to keep up full nutrition when swallowing is so impeded.

In one of his cases the physician in charge had retired hopeless, without doing tracheotomy, and being ignorant of intubation. The child was exhausted and comatose. The tube was inserted. The child returned to consciousness. At the end of forty hours he coughed out the tube. It was not reapplied, and the child made a perfect recovery.

Dr. O'Dwyer, in answer to questions, said that, in his opinion, statistics will be of very little value in settling the question between tracheotomy and intubation until a very large number have been obtained. Aside from the question of saving life, intubation will be resorted to in the most hopeless cases, those in which tracheotomy would not be thought of, for the sake of securing euthanasia.—*Amer. Lancet.*

TREATMENT OF SENILE HYPERTROPHY OF THE PROSTATE.—The bowels are thoroughly evacuated and the patient is placed in bed upon a hard mattress. A conical steel sound of the proper curve and of a size sufficiently large to somewhat stretch the canal is now introduced along the urethra and, by the aid of the operator's finger inserted into the rectum, is gradually and gently insinuated through the prostatic portion until it enters the bladder. With time and patience this is readily accomplished, though at first it may seem impossible; if much pain is occasioned chloroform may be administered.

The sound is allowed to remain in the urethra long enough to leave an impression upon the tortuosities of its prostatic portion, usually five or six minutes, and is then withdrawn. It should now be immediately replaced by a virgin silver catheter of the same curve, but of a smaller diameter. Having been preceded by the larger instrument, the catheter is generally found to enter with comparative ease, even in very advanced cases of the disease. The instrument is fastened into position in the same manner as after the operation of cutting for stone. The patient is allowed, however, greater freedom being permitted to turn on either side, or even, if this does not cause pain, to have his head and shoulders raised by pillows till he almost assumes the sitting posture. He can draw his water by simply removing the stopper from the mouth of the catheter and turning half over on the edge of the bed. The bowels can be kept soluble, it being unnecessary generally to lock them up with an opiate. With nervous patients, however, it may be advisable at first to administer a little morphine to act as a calmative. Large doses of chloride of ammonium are administered for their absorbent action. These may be replaced by iodide of potash in syphilitic subjects.

In the course of five or six days the constant pressure of the instrument aided, perhaps, by the ammonium chloride, will have caused complete absorption of those portions of the prostate gland which had formerly encroached upon the urethra, which will be proved by the freedom with which the catheter may be made to glide to and fro. The cure being then complete the instrument can be withdrawn and the medicine discontinued.

This method of treatment *does not* cause irritation or inflammation of either bladder or urethra; but on the contrary, tends to diminish that already existing.

There is also nothing to prevent the frequent use of astringent, antiseptic or anodyne washes for the bladder whenever required, as they may be readily introduced through the catheter.—*Evan O'N. Kane, M.D., in Medical Times.*

ON THE USE OF LIGATURES ON THE LIMBS DURING SURGICAL OPERATIONS.—Dr. L. M. Sweetnam, in an article published in *N. Y. Med. Jour.* recently gives the following history and conclusions:

A few days ago I was invited by Dr. T. A. Emmet to witness the removal of a large ovarian cyst containing upwards of forty pounds of fluid, from a woman of sixty-three or sixty-four; she was considerably reduced in strength and weight, and suffered from a ventral hernia with a history of peritonitis, so that the case was not a very promising one. At the suggestion of Dr. Bache McE. Emmet, and with the consent of the operator, Dr. T. A. Emmet, I applied the ligatures; she took the ether nicely, and came under its influence promptly. The cyst was found to be firmly adherent from the umbilicus to the region of the spleen; separation was effected by the use of the sponge, after the method of Dr. Skene Keith. The entire operation occupied rather more than an hour, and the total amount of hemorrhage would, I am sure, be more than covered by two fluid ounces. Dr. Emmet took me to see the patient a week later. Her temperature and pulse were practically normal; in Dr. Emmet's opinion, the use of the ligatures had contributed very largely to her recovery.

The advantages offered are:

1. But little time is lost in securing complete anesthesia, and but little in waiting for returning consciousness before leaving the patient, the operation being completed.

2. If the bands are applied ten or twelve minutes before the first incision is made, the operation will be a comparatively bloodless one, and the surgeon works more rapidly and more comfortably than he would if the hemorrhage were more severe.

3. Saving of blood to the patient.

4. If collapse appear to threaten the life of the patient, the removal of one or more of the ligatures can be relied upon to bring about a prompt reaction.

5. There is less vomiting and distress after the use of the anesthetic.

6. The small amount of ether or chloroform used, from an economical standpoint.

7. Fewer ligatures and compression forceps are required to control bleeding.

8. Less embarrassment of lungs and kidneys, and lessened risk of serious injury to these organs if diseased.

Precautions to be observed:

1. In cases where there is a history of purpura it is well to exercise care both as to the amount and as to the duration of the constriction.

2. Where there are marked varicosities of the limbs, these should be supported by rubber or flannel bandages.

3. Where there is no contra-indication, inasmuch as the amount of blood supplied to the heart and cerebro-spinal system is materially lessened, the effect may be somewhat depressing, and for that reason ether would appear to be the best anesthetic.

I have frequently used chloroform with the ligatures, and so far without noting any unpleasant results; but, whichever anesthetic is used, the head should lie low, and, if alarming symptoms should develop, I would draw the patient up so that the head would hang over the end of the table, and at the same time loosen several of the ligatures.

4. If the wound, still open, is watched for five or ten minutes after the removal of the ligatures, its color will be seen to deepen very distinctly from the increased quantity of blood flowing to the part. Now, clots, which were sufficient to seal effectually the small vessels while the ligatures were in position, may give way under the increased pressure; in one case, thirty minutes after the removal of a breast, violent hemorrhage set in, necessitating the reopening of the entire wound to secure the bleeding points. If, however, the bands are removed as soon as the last incision is made, there will be but little risk of any mishap of this kind after the sutures have been introduced and the wound has been securely closed.

5. The constriction may with perfect safety be kept up for two hours, but it is well to keep the limbs wrapped in blankets and thus prevent any serious loss of heat.—*Med. Digest.*

THE TREATMENT OF SNAKE-BITE BY AMMONIA. —Well authenticated cases of recovery from the bite of a cobrā are sufficiently rare to lend special interest to a report published by Dr. Percy Rigby, in the *Indian Medical Gazette.* The patient, a Hindu, aged 30, was bitten, in the presence of a hospital assistant, by a young cobra two feet long, the wounds of both fangs being visible; four hours later he was brought to the dispensary, unable to stand or raise his head, gasping for breath, with copious salivation and bronchorrhea, and full soft pulse; the bite had been inflicted on the back of the hand, and the hand and forearm were much swollen. A solution of permanganate of potash (5 per cent.) was injected in the situation of the bite, the salt in powder was rubbed into the wound, and a draught containing liq. ammoniæ *m*xx was given; the patient grew worse, and was seized with convulsions. The draught was repeated in half an hour, but when two hours had passed, the patient appeared to be sinking fast; an hypodermic injection of liq. ammoniæ *m*xv, with an equal quantity of water, was given, and repeated in half an hour; finally several convulsive seizures occurred, the respirations sank to 6, and the patient seemed *in articulo mortis;* he was, however, given another draught containing ammonia, and in ten minutes began to rally, and in about three hours more was out of danger. The next day the temperature was 101° F., and the arm was much swollen; no ulceration was produced by the hypodermic injections. A second case was mentioned in which the injection of strong ammonia and tight bandaging of the legs was effectual against the bite of *Dabria Elegans.—Brit. Med. Jour.*

PROF. HOLLAND brought two cases of *milk crust of the scalp* before the class, which he treated in the following manner: Remove the crusts with

℞.	Olei morrhuæ	℥ iv.	
	Olei cadini	℥ j.	M.

Then apply the following ointment:

℞.	Unguent. picis liquid	ʒ j.	
	Zinci oxidi	ʒ ss.	
	Unguent. aquæ rosæ, q. s. ad	℥ j.	M.

Sig.—Apply upon cloth to head.

The treatment was attended by a speedy cure.

PROF. DA COSTA ordered the following treatment for *ulcer of large intestine:* An emulsion of turpentine, each dose containing ten drops of the oil of turpentine, and three drops of deodorized tincture of opium, four times a day.

THE following *stimulating liniment* is used quite extensively in the wards of Jefferson College Hospital:

℞.	Tinct. aconit		
	Chloroform		
	Aq. ammon. aa	f ʒ ij.	
	Liniment. saponis, q. s. ad	f ℥ viij.	M.

PROF. BRINTON recommends for *chronic cystitis:*

℞.	Uvæ ursæ	ʒ ij.	
	Lupulin	gr. xv.	
	Aquæ bullient	f ℥ vj.	M.

Ft. infus. et adde.

℞.	Sodii bicarb	ʒ ss.	
	Tinct. opii camph	f ℥ j.	
	Aquæ q. s. ad	f ℥ viij.	M.

SIG.—Tablespoonful four times a day.—*Col. and Clin. Record.*

THE TREATMENT OF VEIN WOUNDS.—In a lecture recently delivered before the Medical Society of Berlin, by Dr. Hans Schmidt, the speaker said that the happy results obtained by Kuster in the treatment of wounds of the larger veins by means of closing the opening with Koeberle's vein-clamps or forceps, led him to further study on the subject, and to a series of experiments on rabbits. He laid bare the vena jugularis externa communis, and vena femoralis in different animals, cut into them, and then closed the wounds with *serresfines*. These he allowed to stay in the vein. The wound was then bandaged antiseptically, and in twenty-four hours the clamps were removed. In six to fourteen days the part of the vein operated upon was cut out and examined. In most of the cases the calibre of the vein was unaltered, no thrombus having been formed. In no case had there been any after-bleeding; all the operations resulted aseptically.

The questions which Dr. Schmidt sought to answer by these experiments were as follows:

1. How long must the clamps remain on the veins in order to insure a secure temporary closing of their walls? *Answer.*—It seems right to remove them in twenty-four hours.

2. How long may the clamps be kept on the veins without causing gangrene. *Answer.*—In no case were the clamps kept on longer than forty-eight hours, so the above question must remain open. In practice the clamps should always be removed in twenty-four hours. If there is still an inclination to bleed, it is the fault of poor antisepsis, and the vein should be ligatured above and below the wound.

3. Does the circulation continue in the vein so treated? *Answer.*—Yes. In two cases where the vessel was obliterated it was considered that too much of the walls of the vein had been caught in the clamp.

4. How does healing take place? This question cannot be answered, as the wounded vein was naturally hidden in the flesh during healing.

5. How long, after the removal of the clamps, did it take for the vein to heal securely and completely? *Answer.*—Two weeks. Up to the tenth day the wound would burst open again, if fluid was injected into the vein with moderate pressure.

6. In longitudinal wounds of the veins, can the same methods of using clamps be resorted to? *Answer.*—Yes.

In conclusion, the writer cites cases of vein wounds, which were treated in the Augusta Hospital. Two were injuries of the vena subclavia, one of the vena axillaris, three of the vena jugularis communis, and one of the femoral vein.

In every case the clamps were kept on for twenty-four hours. There were no after-bleedings, and the circulation was unchanged, so it could be taken for granted that the calibre of the vessels was unchanged.

In the discussions which followed, Dr. Bardeleben called attention to the fact that where the vein had been exposed for some time the use of clamps would endanger its nourishment, and in such cases double ligaturing should be practised.—*Berlin Kl. Woch.*—*Therapeutic Gazette.*

PROFESSOR L. LEWIN, the well-known Berlin scientist, announces a local anesthetic of such overwhelming intensity as to throw cocaine entirely in the shade. The substance is a glucoside, to which he has given the name *erythroplein.* It is derived from an African plant, the *Erythropleum Judiciale.*

OBSTETRICS.

PELVIC PRESENTATIONS AND PERINEAL LACERATIONS. (Dr. J. Suydam Knox in the *Med. Standard.*)—Case I. was a twenty-six-year-old primipara. Slight pains occurred at 4 a. m. May 7, 1887. At 2 a. m., May 8th, Dr. Colton was called and found the breech presenting, S. L. A. As the os was but partially dilated and the pains extremely irritating, he administered opium and chloral. Rest, with gradual dilatation of the os, was thus obtained for the next twenty-four hours—when I first saw the case. Finding the membranes unruptured and the os still not sufficiently dilated, the breech not being engaged, I advised non-interference and continuance of opium per rectum. In twenty-four hours I was again sent for. Water had been escaping for hours, the breech rested on the perineum, the patient was exhausted by seventy hours' labor, and the fetal heart could not be heard. Long and faithful efforts had been made to assist delivery, but the body was apparently impacted in the pelvis and would not advance. With great difficulty I succeeded in bringing down a foot, and at length delivered a lifeless twelve-pound boy. The after-coming head caught in the superior strait, and its extraction with forceps caused a laceration of the perineum to the right side of and beyond the anal sphincter. The soft parts were so swollen and contused that immediate stitching was deemed unadvisable. The perineum was partially repaired by granulation during a tedious convalescence of five weeks. Secondary operation will be required.

Case II. was a twenty-two-year-old primipara, whose labor began May 13, 1887. The first stage of labor was tedious and extremely painful. The membranes ruptured at the end of twenty hours. For three succeeding hours pains were severe and expulsive, when the patient became exhausted and labor ceased. Dr. Nelson was called in and advised stimulants—quinine and opium. The patient slept several hours, awoke refreshed, and the pains returned with strength and regularity. Thirty-nine hours from the commencement of the labor I found the breech resting on the perineum, the body firmly impacted in the pelvis, and the child dead. Persistent efforts at extraction had been made, leaving the vulva bruised and swollen and the perineum rigid. The patient having been put under ether, at the request of the others I engaged a blunt hook in the anterior groin of the fetus and gradually succeeded in extracting the body. The forceps was then applied to the aftercoming head. Its delivery caused a laceration of the perineum through the sphincter and about one inch up the recto-vaginal septum. The weight of the child was ten pounds. Under these most disadvantageous circumstances, Dr. Nelson closed the rent, using three silver sutures in the septum aud four in the perineum. Antiseptic post-partum treatment was adopted, but the patient had septic fever. On the eighth day feces escaped per vaginam. Examination revealed no union, and the stitches were removed. The patient was four weeks in bed. For two months she was confined to the house. She has but little control of the rectum.

Case III., a thirty-six-year-old II-para, was confined four years ago with her first child. After seventy hours of distressing labor, a dead and mutilated child was instrumentally extracted. On the morning of June 24, 1887, I was called. I found the vertex presenting high up L. O. A. The first stage of labor lasted thirty-six hours, when, the os being fully dilated, I ruptured the membranes. Hard expulsive pains succeeded for three hours, when, finding the head did not engage, I attempted the high application of the forceps. The blades were introduced and locked without difficulty, but each attempt at traction caused them to slip backward over the crown of the child. Owing to the great obliquity of the head, this always occurred, in spite of extreme depression of the handles and downward traction. Anesthesia was then produced, the hand introduced and ponalic version easily accomplished. The after-coming head became impacted in superior strait, requiring the forceps. Fifteen or twenty minutes passed before it could be disengaged and delivered. By depressing the handles of the forceps between pains, I succeeded in getting some air to the child, and thus finally delivered it alive. Weight of child, twelve pounds. My best efforts could not save the perineum, which was torn through the anus and one inch up the recto-vaginal septum. After the delivery of the placenta I repaired the laceration with two deep silver sutures. The upper stitch was inserted on a level with the lower vaginal commissure and passed entirely around the recto-vaginal rent. The second stitch closed the perineum above the sphincter ani. The rectal sphincter not having been repaired, the condition of the patient was similar to that after operation for anal fistula. The stitches were removed on the eighth day, finding the perineum healed. The patient was up and about in two weeks, as well as ever.

October 13.—The rectal tear is not fully healed, but sphincter is under full control.

In reviewing these cases I was impressed with the danger to the fetus in delay of delivery after the membranes have ruptured. Until then breech presentations should not be interferred with, for the dilatation of the os is slowly accomplished, and the membranes should be kept intact as long as possible. This long first stage, however, is apt to exhaust the patient and make her irritable. We thus get spasmodic rigidity of the os tincæ and perineum. After the rupture of the membranes and the protrusion of the breech into the vaginal canal, the rigid perineum is apt to cause the flexible body and folded limbs to pack in the pelvis, and delivery is retarded. If this retardation continues, tonic uterine contractions are induced and the child dies asphyxiated, or uterine inertia comes on, and the fetus slowly dies from compression. In the cases reported, the large size of the children and the easy delivery of the after-coming heads show that impaction was not due to disproportion between the pelvis and the fetus.

These successive complications are present in some degree in all breech presentations in primiparæ. The novelty of the situation, with its pain and anxious forebodings, tends to make such parturients nervous and irritable. Under ordinary conditions breech presentations should be severely let alone until the breech has cleared the vulva. The bag of waters can scarcely be left too long unbroken; the folded body best prepares the way for the after-coming head, and therefore the extremities should not be brought down. Tractions lead to the extension of the chin and the passing of the arms above the head, and therefore, ordinarily, are unwise and vicious.

In cases like the two first reported there must be a departure from ordinary methods to avoid the ill results that followed. In a prolonged first stage, the resulting irritability of nerve and muscle can largely be avoided by a free use of opium, guarded by belladonna. Rest is thus secured, strength conserved, the os tincæ becomes relaxed, and the perineum distensible. After the rupture of the membrane, the descent of the breech should be encouraged by pressure upon the fundus uteri during each pain. At the same time two fingers in the vagina, depressing the perineum, would prevent compaction and increase the energy of the uterine contractions. Should impaction threaten, anæsthesia should be induced, the feet brought down, and tractions made—always, however, following the descending fœtus with compression of the fundus uteri. This treatment to be modified by the patient's idiosyncrasies or case pecularities.

Case I. was not operated upon. The soft parts were so edematous and bruised as to forbid expectation of union. I believe this to have been an error of judgment. The edema soon subsided; there was no sloughing, and partial repair at least, with much comfort, would have followed the closing of the wound. The mere apposition of the parts without union is a great advantage to the patient. The latter was far less distressed during the first week of her lying-in, though her laceration was much more grave and no union resulted. In Cases II. and III. both lacerations passed through the sphincter ani and about an inch up the recto-vaginal septum. In Case II. the whole wound was carefully closed with seven silver sutures; non-union resulted. Septic fever was, however, present. In Case III. but two sutures were used, one closing the vaginal rent and the other the perineum. The deep anal fissure was left untouched. Good union followed. I believe these opposite results had their origin in the management of the torn sphincter ani. In such deep lacerations this muscle is a born disunionist and chafes under the restraint of a stitch. It should be excluded in the closing operation. The end sought is to restore the integrity of the perineum. Even the rent in the recto-vaginal septum, unless extensive, is of less importance. —*Arch. of Gynecol.*

LACERATION OF THE PERINEUM IN CHILDBIRTH AVOIDABLE.—Dr. Selwyn A. Russell (*Medical Annals.*)—The vexed question of perineal preservation is one of unceasing interest to the medical man, for the reason that by all, or nearly all, the methods now generally employed to prevent laceration of this structure, laceration too often takes place.

It has been said that "he who preserves from rupture a perineum which is in peril, shows more skill than he who successfully repairs a perineum which has been ruptured." I have not time to describe, nor have you patience to hear, of the diverse methods used by one and another to prevent rupture. Writers on the subject may be classified into six groups, and their plans are as follows:

1. Retardation of the head to allow time and repeated pressure to distend the perineum. (Goodell, Sawyer, Duncan and others.)

2. Methods which aim at protection by applying direct to the perineum some artificial means of support. (Barnes, Playfair, Ramsbotham, Gairdueo, Garrigues and others.)

3. Methods which combine the two, in that they retard the head at the same time that there is afforded direct support to the perineum. (Parvin, Schroeder, Luck, Hodge and others.)

4. There are some who, following neither of the above methods, yet try to accomplish the same result by means of forcible dilatation of the vulvar and vaginal outlets with the finger, at the same time practicing a process of enucleation. (Ritgen, Ahlfeld, Olshausen, Smellie.)

5. Episiotomy; probably not advocated by any one to the entire exclusion of all other methods, and chiefly used in cases of impending rupture. This practice has advocates in Baker, Tyler Smith, Cazeaux, Simpson, Luck and others.

6. The last, and least in number, includes such as abstain from any interferenca, and let the perineum religiously alone. They say that interference may not only do no good, but may do actual harm. (Leishman and Hewitt.)

It is plain that by far the greater number believe in some method or other to preserve the perineum, and methods which combine the retardation of the head, and therefore stretching of the perineum meet with most favor.

Now the object of my remarks is to describe how this retardation is best accomplished, also how to perform episiotomy in cases of necessity.

In a contribution to the *Medical Record*, I described the method I employ to prevent perineal laceration:

The woman should be delivered on the left side. As she lies obliquely across the bed with the hips on the right edge, the nurse supporting the raised right knee, the physician sits behind, his left hand between the thighs and covering the vulva; the right, with a towel intervening, covers the perineum, though never hiding it from view. As the head is pushed down by the uterine contractions and the voluntary efforts of the woman, it is held from advancing too far, if necessary, by clasping the hands firmly against it. When the head has advanced far enough, and the parts are sufficiently dilated, it is slowly and carefully shelled out between the pains, the woman assisting, if necessary, by voluntary expulsive efforts. Care should be taken that the shoulders do not cause the injury the head has been prevented from producing.

In the statistics gathered by Marston, and published in the *American Journal of Obstetrics*, it appears that ruptures occur in from 4 to 22 per cent. of cases, as seen from Montford, Hildebrandt, Hecker, Preites, Spiegelberg. Lusk, after Olshausen, says 15 per cent. Whereas, with Marston himself, at the Vienna clinic, in 957 cases of primiparæ, but two cases of posterior laceration are reported as occuring after episiotomy. In these 957 cases, there were 22 spontaneous ruptures (¼ of 1 per cent.); there were 38 episiotomies made, and but two ruptures in spite of incision.

Professor Crede gives an analysis of 1,000 cases of primiparæ as follows:

Lateral incisions	259, or 26 per cent.
Spontaneous ruptures	104, or 10 "
Ruptures in spite of incision	29, or 2.9 "

From this it is seen that but 29 ruptures took place in 259 incisions, thus saving 230 perineums from otherwise certain laceration.

Crede found, further, that laceration diminished in frequency in proportion to the frequency of lateral incisions. Of five assistants, the one who resorted oftenest to episiotomy had the fewest ruptures:

10 per cent.	21 per cent.
20 " "	12 " "
26 " "	11 " "
28 " "	7.4 " "
32 " "	7.2 " "

Of all these cases, not one of total rupture is recorded.

I think it is safe to say, leaving out of consideration the cases in which ruptures are due to malformations, cicatrices, unusual size of the head, etc., that the tearing of the parts in question is almost always not only avoidable, but its occurrence is frequently a serious reflection on the care of the medical attendant.

In the wards of Braun and Spaeth, Vienna, also in practice, I have seen many perineums preserved, and have saved many myself, and I feel able, therefore, from both observation and experience, to bear witness to the usefulness of efforts aimed at preservation. The more simple measures failing, recourse should be had to episiotomy—that is, incising the margin of the vulva.—*Amer. Med. Digest.*

KEITH ON HYSTERECTOMY FOR FIBROMA.—I say it deliberately, hysterectomy is an operation that has done more harm than good, and its mortality is out of all proportion to the benefits received by the few. What is the mortality of this operation, now so often and so unnecessarily performed? We shall never know. I put it at 25 per cent., though it is probably much higher. I may be wrong; others can correct me by giving their total results. In other words, one out of every four women operated on by hysterectomy has till now died after an operation for the removal of a tumor that has, as a rule, a limited active existence, and that of itself rarely shortens life. We have no right to rush our patients into such a fearful risk, yet this is done every day. In abdominal surgery responsibility seems to have become old fashioned and gone out of date.

Fortunately for those afflicted with uterine tumors, it now matters little which of the old ways of operation is the best; whether the ovaries can be removed or not, whether the extra or intra-peritoneal method be the better way of performing hysterectomy, or whether the convalescence lasts in the one case six weeks, or in the other twenty days, the treatment introduced by Dr. Apostoli must take precedence of all others. The success of this treatment is a great fact, and in saying that I accept *toto animo* his teachings, I do not speak without some experience of his practice. We have already—my son and I—in scarcely five months, applied electricity in strong, accurately measured doses upward of 1,200 times, in considerably more than a hundred patients, the majority in cases of uterine fibroids. The labor has not been small—indeed it has been very hard—and it is not easy to get the science of the subject into an old head. On the other hand, it has opened out a delightful study, which increases in interest every day the deeper we get into it. When I came back from my holiday in the beginning of July there were waiting for me several cases for hysterectomy, or for the removal of the ovaries for bleeding fibroids, and there have been others since. These have all gone home without operation, with menstruation almost normal, and improving after their return, with the tumors in every case reduced in size, with pain gone and with a freedom to walk about and enjoy life such as they were long strangers to. In one case only has there been a return of hemorrhage. The tumor had gone down two-thirds, she was apparently well, and, unwilling to detain her longer in town, she was allowed to go home too soon. All were more than pleased to have escaped the risks and miseries of a surgical operation that at once put their lives in peril. We—every one of us—consider far too lightly the misery that such operations cost our patients and their friends.

Should these improvements be permanent (and we have Dr. Apostoli's word for it that if the treatment be carried out long enough such is generally the case, and, so far, I am able to endorse almost every statement that he has made), it follows that the field for hysterectomy, for the removal of ovaries for fibroids is narrowed down to the smallest limits. I have never been in favor of hysterectomy, simply because its death rate is so high and because it is performed for the removal of a tumor that rarely kills. So strongly do I now feel on this subject that I would consider myself guilty of a criminal act were I to advise any patient to run the risk of her life—and such a risk—before having given a fair trial to this treatment, even were I sure that the mortality would not be greater than that which hysterectomy has given me in my private cases—under 4 per cent.—*British Medical Journal.*

DR. JOHN A. PACKARD in a recent clinical lecture on hernia lays stress upon two points, which he says are not mentioned in the text-bookst 1. In a case of inguinal hernia, after trying taxis for some time without avail, he directed an assistant to press upon the abdomen a little above the ring so as to press back the intestines from the ring, and then the efforts at taxis were successful. 2. There are sometimes folds in the serous membrane of the sac, which, when the knuckle of intestine is pressed against them close together like valves, thus preventing the return of the bowel.

THE SIGNIFICANCE OF AXILLARY ADENITIS.—It is believed by M. Grancher that tubercular diseases of the lungs may through the mediation of the pleura infect the ganglia of the axilla (*The Lancet*). This peculiarity does not appear hitherto to have attracted much attention, and it is thought that the occurrence of such axillary adenitis may not be rare. The knowledge of these facts is regarded as having much importance, not only from a doctrinal point of view, but also from the standpoint of diagnosis. Grancher advises that henceforth every case of phthisis should be examined for axillary swelling, and, conversely, that every case of axillary adenitis should be examined for the signs of pulmonary mischief.

SELECTIONS.

MEDICINE.

RELIGION AND MEDICINE.—The attitude of religion towards medicine is a cause of sorrow and regret to every conscientious and right-minded physician. No particular sect can be singled out as the chief transgressors, nor can any be wholly exonerated from the charge, but whenever the Church (as represented by either the miracle shrine of "Our Lady of Loudres" or by the "Christian science" of puritanical New England) comes in contact with medicine, the result is always detrimental to truth and morality. The church papers are the chosen mediums of the distribution of quack nostrums, and the conductors of these journals are the active agents for this criminal business. To the honor of some religious journals it may be said that they refuse to soil themselves in this manner, but the vast majority of them scatter these lying advertisements throughout the land with no thought of the responsibility that must rest upon the dispenser of falsehoods. Then the ministerial body, with some individual exceptions, always stands ready to aid every scheming rascal in his efforts to gull the public, by endorsing his vicious wares. Dr. Holmes has wittily said, "Quackery hobbles along on two crutches—the tattle of women and the certificates of the clergy," and who can gainsay it? Any patent-medicine almanac will give ample evidence of the support afforded by the ministry. Through some peculiar mental blindness the clergyman thinks himself competent to pass judgment upon matters of which he is profoundly ignorant, and his self-importance, quite as much as his trusting innocence, makes him an easy prey to any plausible scoundrel who may desire his influence. In the hands of the patent-medicine men the members of the clerical profession exhibit themselves in the exact reverse of the scriptural exhortation—they are as *harmless* as *serpents* and as *wise* as *doves*. The "Christian science" people and the faith curers are other examples of the enemies of pure religion. The contemplation of these follies fills one with astonishment and disgust, and while it would be unfair to accuse the Church as a body of participation in these mad delusions, still the foundation of the sects rests upon what they term the Christian faith, and in the absence of any hearty and official denunciation by the Church, religion must bear the burden.

The watchword of the medical profession is Truth; that is the *summum bonum* of the doctor's life, and in his quest he should find religion as his natural and nearest ally, ever ready to assist and encourage him. What is his dismay then to find himself deserted, and the Church arrayed against him as the stout champion of Error? What wonder is it that physicians as a class are accused of materialism and irreligion? What wonder is it that the tendency of the age is to consider faith as but another name for credulity and superstition? What wonder is it, that the Church, like the ass of Issachar, grows faint beneath her burdens?—*Pittsburg Medical Review.*

PROGRESS IN MORALS.—It is a question of much interest and importance whether the great material progress of the present century has been accompanied by any corresponding moral advance. That we have made immense strides in wealth and luxury, in scientific and industrial development, in all the arts and inventions that contribute to ease and comfort, is a commonplace and unquestionable statement. It is more open to debate whether the tone of public morality has risen, and whether vice and crime have undergone any notable diminution. There are not wanting those who regard the growth of great cities — that striking and essential feature of modern civilization — as conducive to moral degeneracy, and preach a reversion to simple modes of life as a necessary condition of the preservation of a high tone of national character. Much of the argument on this subject is conducted by those who prefer vague declamation to scientific induction, and hence the question has been obscured by rhetorical exaggeration, and often argued with a notable disregard of fact. Let us briefly consider the subject, and, shunning hypotheses, however attractive, look strictly to evidence that is incontrovertible.

In proof that the material progress of the country has had a correlative moral advance, we can point to a diminished and steadily declining consumption of intoxicants, and to a notable improvement in the views generally held upon the liquor question. In the last century drunkenness was not regarded as a degrading vice, and hardly constituted a detraction from the character of the fine gentleman. Now the drunkard is held to be scarcely fit for decent society, and even the tippler is rightly viewed as one to be sedulously shunned. Not less encouraging is the altered tone of public opinion regarding such cruel and demoralizing pastimes as pugilism and cock-fighting. These are still, no doubt, practised, but scarcely a voice is now raised in their defense.

A welcome addition to the statistics of public morals is afforded by Sir Emund Du Cane in an article upon Crime and Criminals published some time ago in *Murray's Magazine.* Taking the year of the Queen's accession and that of her Jubilee as a basis for comparison, he is able to point to a highly satisfactory, and, indeed, surprising, diminution in crime. In spite of the fact that the population has almost doubled during this period, we find that the convicts of all classes in the year 1887 were only about one-fifth of their number in 1837. If we compare the sentences to transportation in 1837 with these to penal servitude in 1887, the contrast is only a little less encouraging, the figures being for the former year 3,785, and for the latter 910. The number of executions in 1837 (including those carried out in the colonies) Sir E. Du Cane puts at 46, while for the five years ending 1886 the average was only 14. In addition to these statistical facts, he points out that highway robbery, once very common, is now practically unknown, and that smuggling, from being one of the most frequent, has become one of the rarest of offenses. Surely the most confirmed pessimist or the most persistent *laudator temporis acti* can hardly study such facts and continue to deny to this age the credit of growth in morals.

While facts such as the above are beyond dispute, their explanation is more open to casuistry. Sir Edmund assigns the chief credit to the efforts made by benevolent societies to aid discharged prisoners in obtaining honest work, to the beneficial influence of reformatories and industrial schools, and to the gradual spread of education. We have no doubt all these causes, and others, have been in operation. In spite of occasional discouraging signs, we believe that this age has been one of great moral and religious progress all along the line, and that a great advance is constantly being made towards those

Sweeter manners, purer laws,

of which the Laureate sings. How far the work of the churches and of benevolent societies has co-operated with wise legislation and private philanthropic efforts is not our province to seek to determine, but the general conclusion remains certain.

As regards the most efficient means of dealing with crime *per se*, two points require to be kept in view, namely, that the natural tendency of blind social forces, unless wisely counteracted, is to keep criminal the man who has once fallen into crime, and to cause the offspring of criminals themselves to drift into a criminal life. Of the two problems, the preservation of the young from their threatened evil destiny is undoubtedly much the easier of solution. Hence, the great importance of reformatories and industrial schools, which tend to divert the current of crime at its very source. Heredity is, doubtless, strong, and the children of thieves and vagabonds come into the world heavily handicapped; but there is no reason to doubt that due restraint timely employed, proper education, and the opening up of honorable careers, have been, and are, most efficient means for cutting off the supplies from the criminal market.

The reform of the hardened criminal is a more difficult matter, but without going into other matters, it is certainly essential that we should not regard the man who has once fallen into crime as hopelessly depraved, and that we should afford him the chance of reformation. Such is the aim of the various charitable organizations, which recognize that society has not done its duty to the criminal when it has merely punished him, however deservedly, and that after punishment comes the not less imperative duty of opening up the way to a return to honesty and purity of life. —*British Medical Journal.*

THE DOMESTIC USE OF SACCHARINE.—A correspondent writing in the *Scientific American*, relates his experience in using saccharine as follows:

Sugar being a prohibited article to me, I naturally became interested in Fahlberg's "saccharine," and obtaining a supply as soon as possible, began experimenting with it. Using it alone to sweeten lemon juice or stewed cranberries, I found it very difficult to mix, and tried various dodges to remedy it, all of which had some drawback or other until I thought of dissolving it in glycerine.

I found that for general purposes the formula of glycerine one pound, saccharine one drachm, heated to solution, was the best. Two teaspoonfuls of the above to the juice of one lemon made up to eight fluidounces make a lemonade sweet enough for almost any one, and three teaspoonfuls to four ounces of stewed cranberries make a dish "fit for a king."

I gave a sample of the above to a gentleman to whom sugar was tabooed, and who was then using saccharine alone, and asked him to try it with cranberries and report. When next seen he said very enthusiastically, "That's splendid. I've bought a barrel of cranberries, and would not go back to sugar if I could."

The advantages of the mixture over pure saccharine are: That the glycerine gives it a body, and the mixture very closely resembles in taste and appearance the best white honey; that it dissolves readily in water, milk, tea and coffee, wines and liquors, and that it can be very readily measured.

THE PROPRIETARY MEDICINE PROBLEM.—Can a physician use in his daily practice a "proprietary" medicine, without lowering the dignity of his profession?

The gist of the whole matter depends upon what is meant by the term "proprietary medicine." In its limited and best sense we understand by the term a remedy of which the ingredients and their proportions are made known to the profession, and the trade or proprietary name of which is alone protected by law. When such preparations are made exclusively for the use of the medical profession, and are advertised exclusively in medical journals, we cannot see any possible lowering of professional dignity on the part of the physician who uses them or recommends them.

The name, in this class of proprietary medicines, is to be regarded simply as the guinea's stamp—a guarantee of the purity and genuineness of the product, and the registration of it—patenting it, if you please, is as much for the protection of the physicians who use it as for the parties who manufacture the remedy. It in no sense makes the drug a "patent medicine" any more than does the writing of "Merck" after an alkaloid, or "Squibb" after chloroform, transfer these chemicals into that category. These men—Merck, Squibb, and a few others, have devoted their lives and spent enormous sums of money in making their products the purest and best that can be attained by human honesty and human ingenuity; and as a reward their names attached in *copyrighted labels* to their chemicals stand as a perpetual guarantee to the physician and patient against the fraud and greed of less honest manufacturers, and it would be a great injustice to them as well as to the profession and public to deprive them of this guarantee.

The question may be, and frequently *is* asked by the purists, "why should a physician resort to these ready-made prescriptions at all? Why does he not draw upon his own knowledge of applied therapeutics and write out his own formula in every case?"

Why, indeed? Simply because he knows that these articles, being made in vast quantities by improved apparatus and appliances, manipulated by highly trained and educated employes, and directed by skilled chemists, can be made better, more accurately and far cheaper than they could be compounded by the most skillful prescriptionist. He does it for the same reason that he buys a watch ready made from the jeweler, or a buggy ready made from the carriage maker.

The most serious charge that is brought against the makers of some of the best known, most valuable and most frequently used proprietary medicines is that the formulæ given by the manufacturers are not the true ones, or, as Dr. Craighill puts it, "a patented proprietary remedy professes to publish its formulary *but does not.*" If this charge were true, it would indeed be a grave one and a just cause for the banishment of such medicines from the list of those which the physician may use. But when we examine into the matter, we find the sole ground for the charge to be that when the ingredients as named are put together by the physician himself, or by the prescriptionist, off-hand, though it may be *secundum artem*, the result frequently differs very widely from the preparation which it is intended to imitate. This fact would go far to prove the charge did we not remember that in all chemical processes *manipulation* has a great deal to do with results, and that the *element of time* has a value that nothing else can supply. A mixture in which no amount of shaking will produce a solution off-hand, or no amount of filtration will clarify, will frequently become perfectly limpid when given the requisite length of time. We are informed by Mr. Lambert that Listerine requires eleven days in its preparation, and Messrs. Battle & Co. tell us that Bromidia, for instance, requires six days for the thorough combination of its ingredients. We have no doubt that many other such remedies require even more time for their perfection, and no amount of skill on the part of the pharmacist can possibly make up for this element in their preparation. These facts are fully recognized in France and Germany, and we find the highest class of the medical journals of these countries full of advertisements and notices of preparations exactly analogous to our proprietary remedies.— From Editorial in *St. Louis Medical and Surgical Journal.*

TOBACCO HEART.—Of the cases of heart disease recently treated in the writer's room, at the dispensary, nine were diagnosticated as functional disorders due to the excessive use of tobacco. All the nine cases occurred in young men between the ages of seventeen and twenty-seven years.

The tobacco was used in all the cases in the form of chewing, the amount ranging from a half pound to one pound a week. The habit of chewing was begun early in life in all the cases; in one case at the age of five years; the oldest age noted at which chewing was begun was twelve years; the average was seven years.

The symptoms complained of were palpitation, pain and dyspnea. Palpitation was present in all the nine cases, and was greatest upon making any exertion. Irregular action of the heart at the time of the examination was noted in only one case. Pain was complained of in seven cases, and always had its seat immediately over the heart or under the sternum. Dyspnea was complained of in only three cases, and was not excessive. Hypertrophy of the heart, as evidenced by increased area of cardiac dullness, was noted in two instances. In both cases the dullness extended to the right edge of the sternum. In the two cases in which hypertrophy had occurred, care was taken to exclude any other cause than tobacco. No murmurs were noted in any of the nine cases.

Treatment consisted in prescribing total abstinence from the use of tobacco, and in some cases, where this alone did not suffice, the moderate use of bromide of potassium. Notwithstanding the great length of time during which tobacco had been used, and the early age at which the use had been commenced, this simple common sense treatment usually sufficed to give entire relief after three or four weeks. In only one case was digitalis used.—*M. H. Fussell, M. D., University Hospital, in Periscope.*

THERAPEUTICS WITHOUT ALCOHOL.—The Temperance Hospital has been in existence now about twelve years, and the annual report for 1886–7 may be studied with advantage in order to compare the results with those of other hospitals. It must not be supposed that the hospital only receives abstainers, though these are in the majority, probably due to the large proportion of infants and children. In the surgical department the results have been very satisfactory, so far as one is enabled to judge from mere figures, but turning to the medical cases, we may restrict examinations to one or two groups of disease, with advantage. Out of thirteen cases of acute pneumonia, four (abstainers) died, one of them on the fifty-fourth day from exhaustion. Only four cases of typhoid fever were admitted in all, and although the cases were of young people—15, 7, 14 and 35 respectively—and comprised three abstainers, they all proved fatal. The treatment was the same as elsewhere, and the only difference consisted in the non-exhibition of alcohol. Then again, simple exhaustion, eighty-seven days after the onset of the disease, proved fatal in one instance. The average stay of patients in the hospital would seem to show that convalesence is unduly prolonged, and this, notwithstanding the fact that the list of cases comprises several of "nasal catarrh" and other trivial complaints. The only occasion on which alcohol was administered was in a case of operation for strangulated hernia, in which death resulted from an unreduced constriction. Every credit is due to the registrar, Mr. Leopold Hudson, for the clear and practical manner in which he has tabulated and arranged his figures. We shall look forward with interest to future reports drawn up on the same excellent plan, as it is only by comparing results that medical men will be enabled to judge the merits of treatment without alcohol. Thanks to the impartial summary with which the report opens, it is easy to grasp its general tenor. It constitutes an innovation which other hospitals would do well to copy.—*Brit. Med. Jour.*

TREATMENT OF LUMBAGO.—Dr. Clarence G. Hellister, of Meadville, Pa., recommends the following in the *Medical and Surgical Reporter* for February 18th:

R.—Potass. iodidi	℥ ss.
Potas. bromidi	℥ ss.
Tr. colchici sem.	f ℥ jss.
Syr. aurantii cort	f ℥ ij.
Aquæ	q. s. ad f ℥ vj.—M.

Sig.—One teaspoonful three or four times a day, or increased until the bowels are slightly acted upon.

FORMULA IN BRIGHT'S DISEASE.—Semmola's formula for albuminuria dependent on nephritis is:

℞. Sodii iodidi	gr. xv.
Sodii phosphat	gr. xxx.
Sodii chloridi	gr. xc.

M. Sig.—Dissolve in water, and give in the course of twenty-four hours, either alone or with milk.

GARGLE FOR CHRONIC PHARYNGITIS.—Endler recommends the following solution as a gargle in chronic pharyngitis:

Zinci sulphatis	gr. xv.
Aquæ menth. pip	f ℥ vj.

M. Sig.—Use as a gargle four times a day.

He says that his own pharyngitis, which had existed for three months, was cured after using this solution continuously for eight days; and that his patients obtained the same successful results. In especially sensitive persons a weaker solution may be employed.—*Berliner klin. Wochenscrift.*

EMULSION OF TEREBENE.—Mr. J. W. England recommends the following formula in the *Amer. Journal of Pharmacy:*

Terebene	
Ol. gossyp. sem	aa *m* clx.
Pulv. acacia	ʒ vj.
Pulv. sacchari	ʒ ij.
Aqua q. s. ad	f ℥ iv.

Dose.—1 to 2 teaspoonfuls (= 10-20 drops).

The product is a milk-white, perfectly suspended liquid, having the odor, and bitter-turpentine-like taste of terebene, and is miscible with water, without separation.

QUARANTINING SCHOOL CHILDREN AFTER HAVING CONTAGIOUS DISEASES.—The Section of Hygiene of the Academy of Medicine of Paris has recently reported to the Academy some suggestions as to the duration of quarantine to be imposed on school children who have suffered with a contagious disease, among which whooping-cough is now classed in addition to the diseases named in the report of 1881. The present report was made to the section on hygiene by M. Ollivier. From the *Bulletin de l'Academie de Medecine*, Jan. 24, 1888, we quote the following suggestions:

1. Pupils attacked with chicken-pox, small-pox, scarlet fever, measles, mumps, diphtheria, or whooping-cough shall be strictly isolated.

2. The duration of this isolation shall be reckoned from the onset of the disease—the first day of invasion; it will last forty days for small-pox, scarlet fever and diphtheria; twenty-five days for chicken-pox, measles and mumps. As the duration of whooping-cough is extremely variable, a return to school should not be authorized until thirty days have elapsed after complete disappearance of the characteristic fits of coughing.

3. Isolation shall cease only when the convalescent shall have taken two or three soap-baths, and have been submitted to an equal number of general frictions, even of the hairy parts of the skin.

4. The clothing which the pupil had at the time when he was taken sick should be subjected to the action of steam under pressure, or to the action of sulphur fumes, and then well cleaned.

5. The room which has been occupied by the patient should be well aired. Its walls and furniture shall be thoroughly disinfected; the bedding shall be subjected to the action of steam under pressure; and finally, the mattress shall be taken apart and submitted to the same treatment.

6. In any case the pupil, who shall have been attacked outside of a public school with one of the contagious diseases enumerated in this report, shall be received again only when provided with a certificate from the physician stating the nature of the disease and the time which has since elapsed, and attesting that the pupil has fulfilled the above requirements. Finally, the reception of the pupil shall always be subject to the results of an examination by the physician to the school.

CORRESPONDENCE.

HEMATOMA OF THE STERNO-MASTOID.

Editor Columbus Medical Journal:

A few days ago my attention was called to an infant, aged three weeks, who presented a small tumor, apparently in the substance of the right sterno-cleido-mastoid muscle. The tumor was hard, about the size of a pigeon-egg, freely movable, and apparently almost painless. The parents had only just discovered it. What is the tumor? I cannot find any description of it in my books. What shall I do with it?

Muncie, Ind. T. M. C.

[The tumor, which is well described by our correspondent, is quite rarely met with. It is described by Owen, in his work on the *Surgical Diseases of Children*, who regards it as a frequent cause of wry-neck. Vogel also describes it, imperfectly, in his work on *Diseases of Children*, under the title, "Sclerosis of the Sterno-Mastoid Muscle." The best description with which I am familiar is that of Henock (*Dis. of Children*, Wm. Wood & Co., 1882), under the title, "Hematoma of the Sterno-Mastoid." The tumor is caused by an effusion of blood (and its subsequent organization) into the sheath of the st. cl. mast. muscle, due to rupture of some of the muscular fibres during delivery. Hence it usually occurs in cases of breech presentation or of forceps delivery, where there has been traction on the neck. This, however, is not always the case; in my own experience I haye met with two cases, in both of which the presentation was normal and the labor easy. As to treatment, do nothing; unless, as Henock suggests, you use an ointment of iodide of potassium, as a placebo, in order to keep the case under observation. The tumor will disappear in a few weeks.—J. F. B.]

A NEW "EPIDEMIC."

[Dr. Charles Graefe, of Sandusky, sends us the following letter, and expresses the hope that some "medical sharp" will succeed in making something out of it.—EDITOR COLUMBUS MEDICAL JOURNAL.]

PORT CLINTON, O., Nov. 29, 87.

DR. CHAS. GRAFE, Sandusky, O.

Dear Sir. I will cordialy remind you of an epidemic that is coming on the people of this country it is in the shape of constitutional sypilis (Pox) It is seen on all sides, funny colar of the eyes, sinking of the same, don't feel like doing anything, rubbing the eyes, sore eyes, winking all the time Something is wrong I know pains and swellings, Sore ankles and back, beginning of caries of the bones or cartilege I presume, as the desease advances more will be found out, I seen a child the other day where the eyes were nearly gone, And dont you forgit it. The eyes are going fast allready Hoping you will investigate I remain

Yours Truly DR.————

The latest idea we have had suggested in the way of medical progress is the following: Our postmaster, who is an M. D., while placing a "postal delivery stamp" upon our letter "wondered if it would not be a good idea to place one of those 'stamps' upon the abdomen of a woman during labor; that by so doing if it would not *hasten* 'delivery.'" Comment unnecessary.

I. W. C.

MATRIMONY.

To pop or not to pop, that is the question,
Whether 'tis easier for a man to suffer
In single blessedness the rubs of fortune,
Or ask some pretty girl to share his troubles
And by proposing end them ? To woo, to wed,
No more; and by a form to say he's free
From all the little ills a bachelor, poor man,
Is plagued with ; 'tis a consummation
Devoutly to be wished. To woo, to wed—
Perhaps a family ! Ah, there's the rub ;
For in the marriage state what cares may come
When he has taken to himself a wife
Must give him pause; there's the respect
That makes the celibacy of so long a life.
For who would bear the washerwoman's crimes,
The buttonless shirt, the stockings full of holes,
The pangs of collars with a sawlike edge,
The lodging-keeper's sins, the cat's misdeeds,
And strange evaporation of his brandy,
When he himself might his quietus make
With a plain gold ring ? Who would chambers keep
And growl and fret a solitary life
But that the dread of endless tradesmen's bills
(But housekeeping expenses, from whose doom
No Benedict escapes) puzzles the will
And makes him rather bear the ills he has
Than fly to others that perhaps are worse.
Thus prudence makes a coward of man,
And thus we see most desperate flirtations
On this account too often end in smoke,
And promises apparently of granite
Are broken like the crust of apple pie,
And the ladies bring an "action."

—*Temple Bar.*

EDITORIAL DEPARTMENT.

J. F. BALDWIN, M. D., Columbus, - - - - EDITOR.

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COLLEGE COMMENCEMENTS.

COLUMBUS MEDICAL COLLEGE.—The exercises took place in the Metropolitan Opera House, Wednesday evening, Feb. 29. The principal address was delivered by the Rt. Rev. Bishop John A. Watterson. H. J. Booth, Esq., delivered the address to the graduating class. The following named gentlemen then received the degree of M. D., viz:

A. W. McClintock, Lena; J. W. Hornby, Alexandria; F. E. Thompson, Kingston Center; G. W. Mangus, Herkimer, N. Y.; R. P. Beggs, Perryopolis, Pa.; T. M. Talbot, Urbana; G. C. Lockwood, Johnstown; H. J. Sheppard, Nashport; H. Hewetson, Amanda; J. M. Rhodes, New England; E. A. Williams, Columbus; A. J. Cunningham, Lyons; S. H. Yeater, Nashville; S. Iglick, Columbus, and D. E. Parsons, Mountville. Total 15.

No prizes; no flowers.

This is the smallest class ever graduated from this institution.

STARLING MEDICAL COLLEGE.—These exercises were held at the Metropolitan, on the evening of March 9. Bishop Watterson, of the Diocese of Columbus, gave the address, followed by Prof. Starling Loving with the charge to the class. The following is the list of graduates:

W. A. Cromley, E. M. Gilliam, Louis Kahn, C. W. Miller, S. S. Wilcox, F. B. Williamson, William Berry, H. G. Boynton, W. B. Brown, C. M. Coe, M. S. Cramer, W. L. Dick, E. G. Fuller, J. M. Goff, C. V. High, W. H. Hooper, G. P. Huddle, E. J. Hyatt, D. T. Kiser, P. M. Lehman, W. H. Lemmon, C. A. Levering, S. B. Lusk, E. I. McVey, E. B. Meade, J. H. Moninger, C. E. Monroe, W. Newell, E. E. Neeley,

W. H. Parent, L. H. D. Pierce, G. T. Plotnar, E. D. Rex, J. W. Russell, C. J. Smith and G. T. Snode. Total 37.

Prizes:—The first prize, $50, was awarded to Dr. David P. Kizer, of Springfield, for the highest scholarship. The second prize, $25, to Dr. W. C. Weber, of London, for the best written and best defended thesis. Dr. Sterling B. Taylor, of Russelville, Ky., was awarded a case of surgical instruments for the best report of the medical clinics, and Dr. Earl M. Gilliam, of Columbus, was given a similar prize for the best report of surgical clinics.

The stage was covered with flowers and other gifts sent in by friends of the graduates. The class was an unusually large and fine one.

THE *Medical Age* gives utterance to the following observations in an editorial, anent medical society meetings: "When the remarks do not consist of the utterance of vapid inanities ad nauseam, the evening is taken up with the presentation of eyes which ophthalmologists have enucleated, tumors which gynecologists have removed, arms and legs which surgeons have amputated, fragments of stones which genito-urinary men have crushed, or instruments to which some of the other specialists have attached their names so that they (the names) be carried beyond the confines of their own baliwicks. The average medical society, in cities at least, seems to be run chiefly for the glorification of the specialist, and the chief function of the general practitioner is to furnish the filling for the specialist framework. We have been amused to see your specialist's air of superiority, as he passes to the underlings who sit disposed in regular rows around the room, the eye, for instance, which his peculiar skill has enabled him to enucleate. Your common every-day general practitioner, whose skill and knowledge of the body as a whole, may in numerous instances have prevented eyes from reaching the ophthalmologist, has not a word to say during the specialist's theatrical display (your specialist is nothing if not theatrical), but he is expected to furnish the applause. Instead of taking the back seats where they properly belong in medical societies, the specialists force themselves up into the amen corner, and the general practitioner gets in his say only after the specialists have exhausted themselves."

WE heartily congratulate our sprightly Philadelphia contemporary, the *Medical World*, on its resolve to abolish from its columns the digraphs æ and œ, except as the former indicates number or case. We think it is now nearly, or quite, ten years since we made a similar resolve in regard to our own columns; and yet the *World* seems to think the idea is original with itself, and cackles like a young pullet over its first egg. But, then, it would not be Philadelphian, if not slow. To be sure such words as fetus, and edema, and diarrhea, did look a little queer at first; but the principle was correct; we persevered in the reform, and now they no longer attract attention.

During these years, moreover, we have been pleased to notice a number of publishing houses, and other medical journals, wheeling into line, and although not very many have the hardihood to make the change complete, they are rapidly reaching that point, and it will not be long until the retention of those absurd and useless digraphs will but prove the author's pedantry.

THE INDEX MEDICUS.—We are sorry to learn that this excellent periodical is still unable to meet its current expenses of publication. It is a publication that every medical man of literary ambition should have at hand for reference. Yet it has but 240 paying subscribers in the United States, and 123 elsewhere. Ohio has six subscribers. The *Index* is kept up through the public spirit of Mr. Geo. S. Davis, of Detroit; but how long he will continue to publish it thus at a loss, we cannot say. The publication *deserves* substantial support.

DR. R. B. HALL, late of Chillicothe, has removed to Cincinnati, his address there being No. 281 West Seventh Street.

Our readers will recall the Doctor's interesting letters, which he wrote while studying gynecology, and especially laparotomy, under Tait, Keith, and the other masters of Europe. Since his return to this country he has, by a series of bold and successful operations, most fairly "won his spurs," and he now goes to Cincinnati, where he has established a private hospital, in order to secure a larger field for the practice of his specialty.

WE take pleasure in calling the attention of our readers to the advertisement of Messrs. John Wyeth & Bro., on page 11. We are sure every physician will be interested in the new remedies that are here presented in the form of Compressed Tablets, affording a means of administration in every way convenient and prompt in therapeutic results. Circular matter containing full recent data of the value of these Antipyretics and Antiseptics, will be sent to any physician who may desire them.

FELLOWS' HYPOPHOSPHITES is a preparation that many unscrupulous pharmacists have attempted to imitate, but thus far unsuccessfully. Physicians have always found it so uniform in its composition and effects, and so acceptable to the stomach, that they are loth to even try any so-called substitute or "similar preparation" that may be offered them, no matter how highly lauded—by the manufacturer.

WE are in receipt of a circular from Messrs. Parke, Davis & Co., announcing an improved hypodermic syringe case. The case is of metal, made to fit the vest pocket, and contains, besides an improved syringe, two needles, cleaning wire, and a half dozen bottles of assorted hypodermic tablets. These tablets are the result of much experimentation, and are surprisingly soluble.

AN *important* step in advance has been taken by the Medical Department of the Western Reserve University in making the three years' graded course requisite for graduation beginning with the session of 1888–9.

THE error in the title of Dr. Orwig's article on Antipyretics, in our last issue, was of course purely typographical.

SANDER & SONS' EUCALYPTI EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Greifswald.

PRACTICE FOR SALE.—Owing to ill health I desire to sell my residence and practice. Will stay until June to introduce successor. Population 800, and town rapidly growing. Excellent college and high school. Two good drug stores. Good roads, mostly free pikes. On B. & O. R'y. No saloons. Will sell property and "good will" for $1700, on easy terms.

Address: PRACTICE, care of COLUMBUS MEDICAL JOURNAL.

A TEST FOR SEWER GAS.—The presence of this poisonous gas in a room may be detected as follows: Saturate unglazed paper with a solution of one troy ounce of pure acetate of lead in eight fluid ounces of rain water; let it partially dry, then expose in the room suspected of containing sewer gas. The presence of this gas in any considerable quantity soon blackens the test paper.

TO PREVENT CHAPPED HANDS.—R. Ol. rose, 15 drops; glycerine, 1 ounce; Sp. myrciæ, 3 ounces; Ol. cajuputi, 20 drops, M. Sig.—To be used on the hands every night before going to bed, and in cold weather to be applied before going out into the open air, the hands being first washed and dried.

REVIEWS AND BOOK NOTICES.

The Practice of Medicine and Surgery Applied to the Diseases and Accidents Incident to Women. By W. H. Byford, A. M., M. D., Professor of Gynecology in Rush Medical College, and of Obstetrics in the Woman's Medical College, etc.; and Henry T. Byford, M. D., Surgeon to the Woman's Hospital at Chicago, etc. Fourth Edition. Thoroughly revised, rewritten, and enlarged by over 100 pages, with 306 illustrations, 100 of which have been especially drawn for this edition, from original drawings made from life or based on the observations and investigations of the authors. 832 pages. Cloth, $5; leather, $6. Philadelphia: P. Blakiston, Son & Co.

That Dr. Byford is a teacher is evidenced on nearly every page of this book. In preparing this edition for the publisher he has revised it all and rewritten very much of it. Chapter one opens with the Anatomy and Physiology of the Female Pelvic organs. It contains numerous well executed diagrams and drawings illustrative of the subject matter. Then follow chapters on Instrumental Examination of the Female Pelvic organs; Accidents of the Labia and Perineum, and operations for their restoration; Diagnosis of Uterine Diseases; Displacements of the uterus, etc., concluding with three chapters on ovariotomy. Every student of gynecology, whether a mere tyro or possessed of wide experience, will find much in this volume to interest and instruct, and we know of no book which, on the whole, so clearly and thoroughly discusses the various diseases peculiar to women.

THE *Forum* for April (published at 97 Fifth Ave., New York) contains two notable political articles. Mr. John Foord, an Independent, who was formerly editor of the *New York Times*, maintains that Mr. Blaine could not carry New York this year or receive as large proportion of the votes in that pivotal State as he received in 1884. He makes this showing by a study of the statistics of the elections held since 1884. Mr. Henry Watterson, writing on the "Hysteria of Sectional Agitation," shows that the Union is stronger now than ever before, and that no partisan agitation can again estrange the sections. He pays his compliments vigorously to Mr. Murat Halstead, and quotes election statistics to prove Mr. Halstead's error.

There are two articles that bear on the Roman Catholic Church—one by the eminent Belgian scholar, Prof. Emile de Laveleye, who shows how powerful a factor the Pope is in European politics; and the other by

Monsignor T. S. Preston, who writes specifically against Henry George's books.

E. P. Roe, more of whose stories have been sold than of any other living novelist, explains the secret of success in fiction. Mrs. Alice Wellington Rollins, who has made a study of the slums and the social problem involved therein, with a woman's sympathy for suffering, explains the impracticability of most of the methods of reform that have been suggested.

Dr. Meredith Clymer, the eminent New York physician, explains the faith-cure and similar miraculous methods of healing; Mr. John D. Champlin, Jr., the enclycopedist, writes a broad essay on "The Union of the English Speaking Peoples," predicting the annexation to the United States of Canada, and ultimately of all British America; and Mr. Park Benjamin reviews the remarkable work done by Dr. Wm. Gilbert, Queen Elizabeth's physician, in creating the modern science of electricity.

From a scientific point of view the most noteworthy article in the number, and one of the most noteworthy that has been published in a very long time, is an explanation by Dr. Brown Sequard of the location of the brain's various functions.

Chemical Manual for the Study of Medical Cases. Edited by James Finlayson, M. D., Physician and lecturer on clinical medicine in the Glasgow Western Infirmary, etc., etc. Second edition, revised and enlarged; with illustrations. Philadelphia: Lea Bros. & Co. 1886.

This volume is much larger than its predecessor, owing to the addition of a large amount of new matter, and to a large increase in the number of illustrations. The book is designed chiefly for students to use in connection with their clinical work, and not to take the place of more exhaustive treatises. It is excellently adapted for this purpose.

Health Lessons. A Primary Book. By Jerome Walker, M. D., Lecturer on Hygiene at the Long Island College Hospital, and on Physiology and Hygiene at the Brooklyn Central Grammar School, etc. New York: D. Appleton & Co. 1887. 12 mo.; pp. 194.

This book is designed for children, and can be used either for reading or for a school text book. It contains much valuable information, well and pleasantly expressed. The illustrations are numerous and pleasing.

The Rectum and Anus: Their Diseases and Treatment. By Charles B. Ball, M. Ch., Univ. Dub., F. R. C. S. I.; Surgeon to Sir Patrick Dun's Hospital; University Examiner in Surgery; and Member of

Surgical Court of Examiners, Royal College of Surgeons, Ireland. With 54 illustrations and four colored plates. Philadelphia: Lea Brothers & Co. 12 mo.; cloth; pp. 410; $2.25.

This volume contains a very full consideration of the diseases of the anus and their treatment. Especial attention is given to the consideration of wounds of the region discussed. The author's recommendations are all in harmony with the most approved principles of modern surgery. The main feature of the book is its singular conciseness and clearness.

Fever Nursing, Designed for the Use of Professional and Other Nurses, and especially as a text book for nurses in training, by J. C. Wilson, A. M., M. D., author of "A Treatise on the Continued Fevers;" visiting physician to the Philadelphia Hospital, etc. Philadelphia: J. B. Lippincott Company. 1888. 12 mo.; cloth; pp. 210; $1.00.

This little book, as suggested by the title, is not intended for professional nurses alone, but the information is so plainly given that untrained persons may fully profit by it, and it would be well if it could be generally read. The suggestions are all good and to the point.

On a New Treatment of Chronic Metritis, and Especially of Endometritis with Intra-Uterine Chemical Galvano Cauterizations. By Dr. Georges Apastoli, Paris. Translated by A. Lapthorn Smith, B. A., M. D. 12 mo., cloth. 119 pp. Geo. S. Davis, Detroit; 1888.

This monograph is this first complete one on this method, which the author's admirers think is destined to completely revolutionize the treatment of chronic metritis, as well as of subinvolution and fibroid tumors of the uterus. We very much doubt, however, if it particulary hastens the gynecological millineum. The book is written in a very clear, practical style, and can be understood by every one.

A Practical Treatise on the Medical and Surgical Uses of Electricity. Including Localized and General Faradization; Localized and Central Faradization; Franklinization; Electrolysis and Galvano-Cautery. By George M. Beard, A. M., M. D., Fellow of the N. Y. Academy of Medicine, etc., and A. D. Rockwell, A. M., M. D., Professor of Electro-Therapeutics in the N. Y. Post-Graduate Medical School and Hospital; Fellow of the N. Y. Academy of Medicine; Member of the American Academy of Medicine, etc. Sixth edition. Revised by A. D. Rockwell, M. D. With nearly 200 Illustrations. New York: Wm. Wood & Co., 1888. 8vo., Cloth. Pp. 758.

This book requires no introduction. It has always been known as the most comprehensive treatise extant on the subject of electricity and its therapeutic applications. Dr. Rockwell, who has had sole supervision of the work since Dr. Beard's untimely death, keeps it fully abreast of the times. The present edition is rendered necessary, chiefly, by the fact that within the past two or three years Apostoli, of Paris, has by his experiments and the results that he has succeeded in obtaining, greatly enlarged the domain of electricity in gynecology. The revision in the present addition, therefore, has been mainly restricted to this subject, and the chapter on the Diseases of Women almost entirely recast. The methods through which these better results in gynecology are obtained do but confirm the truth of the observation made in the Preface to the third edition, to the effect that the real scientific basis for the use of electricity in medicine and surgery is found in electro-physics more than in electro-physiology.

Rectal and Annal Surgery, with a Description of the Secret Methods of the Itinerants. By Edmund Andrews, M. D., L. L. D. Professor of Clinical Surgery in the Chicago Medical College, and E. Wyllys Andrews, A. M., M. D., Adjunct Professor of Clinical Surgery in the Chicago Medical College. With original illustrations. Chicago: W. T. Keener, 96 Washington St. 1888. 8 vo.; cloth, pp. 111; Price, $1.25.

This little brochure fills a very important place at this particular time, when so much attention is devoted to a consideration of rectal troubles. Its title very fairly indicates its scope. Portions of it have already appeared in medical journals, and have been laid before our readers. The book contains a condensed description of the latest methods of treating hemorrhoids and other rectal affections, as practised by Dr. Andrews. The procedures of the itinerant "pile doctors" are explained and discussed, with the author's own views, pro and con. The book is a convenient and valuable summary of current knowledge on this branch.

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COMMUNICATIONS.

REMINISCENCES BEARING UPON THE FACULTY AND STUDENTS OF STARLING MEDICAL COLLEGE DURING THE SESSION OF 1853-54.

BY J. S. HALDEMAN, M.D., ZANESVILLE, OHIO.

President of the Alumni Association of Starling Medical College. Delivered March 9th, 1888.

It may not be unfitting for me, occupying the position I do, caused by your apparently voluntary generosity, to note a few reminiscences, as they occurred thirty-four years ago, relative to the faculty and students of Starling Medical College.

When I came back to these rooms and this alumnal association three years ago, for the first time after graduation in 1854, February 17th, I forgot, for the time, that I was a practitioner of medicine. And it seems so within these walls to-day; and, that I am but a student, as in the past halcyon days, when I entered here, and matriculated, and seated myself to take in all I could of medical lore; and medical lore it was, as I think, I experienced it to be in the after walks of life, in plying our chosen, and honorable, and health-restoring profession, and one we all doubtless deem par excellence.

To me, there is something sublimely sacred in the things of a bygone student's life. It makes no difference how minor, nor insignificant they may have been, as the years roll on and on they only become the stronger fixtures of the past, and hourly magnify themselves in the estimation of the parties they concern.

The city, or village, or town, or neighborhood, as the case may be, in which the school is located, is preferable, and has charms above all others. Therefore to me, Oxford and Columbus are pre-eminent! The building, or buildings, have peculiar attractions. The place, or places, of boarding—the name of the host, or hostess, never becomes oblivious, but are enshrined in the memory as long as mortal life endures. And who knows but what that enshrinement is co-existent with immortality?

And last, but by no means least, its faculty is grandly unique—the *only one*. Its greatness and excellency can never be transcended, neither eclipsed; and the scintillations of the intellects of the persons composing it will ever and anon be flickering about our imaginations.

I shall never forget Charles A. Lee, Professor of Materia Medica and Medical Jurisprudence; how, in his simple and trite manner, he used to describe and inculcate the habitat, the history, the properties and the modus operandi of the several articles of the Meteria Medica. I recollect very distinctly, when telling, at a certain time, the particular effect a certain article would have upon the abdomen and its organs, he used the vulgar term belly, which wonderfully excited the risibilities of the class, whereupon he said, apparently not at all discommoded: "You need not laugh, gentlemen, it is always best, when we wish to make ourselves understood, to use common words—and I am sure the word *'belly'* you can all understand!"

Then again, when descanting in a general way, at a particular time, he said some *insane* persons have many *sane* qualities which prevented persons not familiar with them from recognizing them as being *non compos mentis*. "For instance, gentlemen, you almost daily meet some of the inmates of the Insane Asylum upon the streets, and really you might make the mistake and take them for medical students!"

Those occurrences mentioned are but a few of the very many characteristics that occurred and might be named with interest, relative to the truly great and noble Professor Charles A. Lee.

Nor can I ever forget the name of Samuel M. Smith. It requires no bust nor statue of bronze to keep him before the mind's eye. And yet I believe you have one in this city. And may I be allowed the expression, it can never be as imperishable as his name! And the acts he performed! Samuel M. Smith does not only live in my memory because he was Professor of Theory and Practice in Starling Medical College, but also because he hailed from the classic halls of that grand old State institution, the Miami University. He went out from it, buoyant and aspiring for future laurels, about the time I entered it. He was a very positive man, but generally cautious and correct. And yet the idea, somehow or other, lingered in the mind of the student that he was not infallible. I remember very distinctly, as though uttered yesterday, when detailing with his accustomed minuteness the various remedies for phthisis pulmonalis, he said: "When you have come to the end of the long string of cures, and the betterment of the patient was not discernible, and the prognosis was irresistible that death would end the career by and by, as a last and desperate resort, advise him to go to some miasmatic locality, and, if possible, contract the ague, and, if that does not cure him, nothing will!"

Another circumstance, relative to Prof. Smith, that lingers on the tablets of the memory, and is fresh every morning and evening is, that he was necessitated, one time, to disappoint the class. We waited and waited, until the time had nearly expired, when neither he nor his manuscript made their appearance; for, be it known that he never, that I now remember, appeared before the class unaccompanied by his manuscript. Therefore he knew just what he was going to teach, and never floundered and got into the brush. When he appeared the next day, as a matter of course he made an apology, which was expected. And what do you think it was? It ran in this wise: "Gentlemen, by the exorbitant and unalterable decrees of obstetrics, I was tied to a bed post, and guarded by a band of females, who kept constant, anxious and sympathetic vigil, and could not be released until the hour for the lecture had passed." As in the case of Lee, so also with Smith, characteristics of this kind could be multiplied, but to enumerate them would make this production too prolix.

Professor R. N. Paddock is another of those live men, living in the memory, who constituted a part of the galaxy of worthy instructors of the College, and who seemed to know, or at least we thought he did, as much about the various component portions of the mechanism of the fearful and wonderful human fabric, as any other living man. His portly appearance, his black, heavy hair, his sharp, penetrating eyes, and his forcible address, never failed to make a favorable impression. One of his utterances especially I shall not soon forget, and it was not of an anatomical character, either. The reason doubtless is, that, in connection with its intrinsic worth, it was one of Prof. Paddock's peculiar expressions, and uttered to the class, that makes it more valuable than gold. He said on a certain occasion, I do not now remember what circumstance originated it: "Gentlemen, be exceedingly careful of your orthography, for if you should be so unfortunate, some time or another, to misspell *one* word, it may deprive you of an important position, or shut the door to higher promotion and coveted fame! I knew," said he, "some time ago, a certain aspiring young physician (which novitiates generally are), applied for a professorship in a medical college by writing to the trustees, and in that little missive he spelt one word incorrectly, and only one, but then that was enough to cause them to reject his application, and disappoint his hopes and prospects in that direction. Now, his poor orthography did the mischief! Do not, any of you, gentlemen, go and do likewise."

Then, there was Professor F. Merrick, who aimed to make us wiser in the science of chemistry, and botany, and occasionally gave us a lecture on geology. A more scholarly person than he, and ambitious to be such, was hard to be found; and we did not then, nor does any one now, perhaps, only accord to him scholarship, particularly in the branches named, but we take pleasure to name it, in this connection, that we ascribed to him, then and now, every necessary quality of heart and mind that inevitably builds and adorns true manhood. His lectures on electricity and magnetism were truly very instructive and interesting. And to make them more impressive and lasting upon the mind, he would require us, now and then, in order to realize the electric shock, to make an attachment by catching hands, and thus forming a large circle. I remember distinctly the peculiar novelty created by it was the variety of degrees the impression would make upon the different subjects composing the magnetic circle, as we then called it. Upon some it was very faint, and upon others great. Invariably, however, the circle was broken at different points by the dropping of the hands.

Then again, he was very fond of chemical experimentations, as I remember, especially that of the hydrogen gun or gas pistol. He would give us frequent illustrations of it. And it appears to me, as I stand here so near to the spot where it occurred, this afternoon, I can hear its terrific detonations. I believe I am borne out in this asservation by the law of accoustics, uttered by Prof. Silliman, to-wit: If an impression is once made upon the undulatory waves of the atmosphere, it never stops. So then, it may be true that those detonations, caused by Prof. Merrick's hydrogen gun in 1853-54, are still passing upon the etherial waves, and will be for all time to come.

Then again, another character that dwells in the student's memory, of that memorable class, and now and then confronts his vision, is the eloquent F. Carter, as we then denominated him, Professor of Obstetrics, etc. Others we have named may have been methodic, instructive and argumentative, but Carter was emphatically the orator of the Faculty. A widower when the session began, he married before it closed. I remember that one day he took a little umbrage at something Prof. Paddock said, for he was sensitive and quick to show it, who lectured in the room above us. And, referring to it, he said he did not wish to say anything derogatory to his (Paddock's) fair name, nor that would in the smallest degree deteriorate it, nor pull him down from his lofty eminence, for he was so far above him (literally the room was), and too, that much nearer heaven than he. "Gentlemen, I would deem it exceedingly sacrilegious to make an attempt in that direction."

I remember, also, that at that period he was an ardent advocate for the judicious use of the obstetrical forceps, and so carefully explained and showed when and how to apply them, and, when applied, how to use them. He said: "Gentlemen, you must then make careful traction—wiggle and wiggle them cautiously from side to side, and draw on them tightly, just as you would wiggle and wiggle when drawing off a very tight and closely fitting boot."

We come now to notice and make some remarks relative to the only remaining member of the faculty, to-wit: Prof. E. M. More, who took the place of the lamented Prof. Howard, who died, if my memory serves me correctly, about the first or second week in January, 1854. Prof. Howard was exceedingly popular with all the students and the citizens, as a gentleman, practitioner and medical lecturer, especially in his department of surgery. His demise truly was greatly felt and lamented in the College, and his loss deplored by all. So the circumstances that opened the way and made it necessary for Prof. More to assume the duties as chirurgical instructor were peculiarly sad and oppressive; and for a time cast a thick and almost impenetrable sombreness over his department, which, in some measure, prevented him from being as readily and universally acceptable as he might have been, and doubtless would have been, if this dispensation of the Divine Providence had not occurred. I would here record, in honor to his fair fame, and our just appreciation of the same, that he was as popular as any other one could have been under the circumstances. And, we can truly, with pleasure, accord to him gentlemanliness, scholarship and profundity of erudition, especially in his department, and, too, the faculty of communicating it to his class.

Dr. C. C. Parker, of the class of '50, was then our Demonstrator of Anatomy. If I forget not, he was rather small of stature, and apparently physically delicate, and yet, withal, efficient in his department, and complaisant in his demeanor among the students under his supervision and instruction. A number of pleasant memories, that occurred in his department, might be mentioned, but for fear of trespassing upon your time we forbear to do so.

The number of the entire enrollment of students of that year, I do not now know. The number who graduated, I believe, was 42. There had been, all along, 44 in the class anticipating that delicious *bonum magnum*, until after they severally emerged from behind the curtains of the green room where they underwent their grinding, or sublimation process, when lo! and behold, there were only 42. Two were impalpably pulverized, or perhaps, more modernly putting it, *cremated*. Whether they ever again, in after years, medically, Phenix-like, arose from their ashes, this deponent could not say. It is hoped they did, and will live to as great an age as that fabulous bird is reputed to have lived.

Many of the class of '54, with whom I was then familiar, are as unknown to me to-day, so far as their locality and reputation is concerned, as though I had never seen them; but, then it is very gratifying that those I do know and have heard from are doing well. Some have become stars of the first magnitude. We see one shining in the firmament of the Ohio Medical College as its Professor of Obstetrics and Diseases of Women and Children. We see, also, another in the firmament of the Board of Censors of *this* institution. And so, doubtless, we could see others of the class, if we had a good eminence to look from and knew just *where* to look towards.

We come now to the end, and finish up by saying: No doubt each succeeding class entertains as high an opinion of themselves as the class of '54, and cherishes as warm a regard for and passes as great a eulogy upon the several members of *their* faculty. And we, as alumni, to-day, doubtless, are *all* willing to concede that the faculty, existing before and since, down through all the intervening years, embracing the present one, were and are equally, if not *more* meritorious, both in physique, mentality and culture; in short, possessing every quality necessary to enter into the proper make-up of an acceptable and successful professor of an honored and honorable medical institution, of which we are the humble and at the same time proud representatives.

DENTAL DIETETICS AND ITS RELATION TO THE TEETH.

W. I. THAYER, D. D. S., M. D., BROOKLYN, N. Y.

The profession is beginning to pay more attention to dietetics than formerly. Phthisis is more successfully combated, where tissue building, by the aid of nitrogenous foods is brought in to combat *tissue wasting*. Fight the microbes, if any, by building up the enfeebled tissue faster than it can be melted down.

The teeth are composed of—in gross—two substances, soft solids and calcareous salts. Human teeth decay much more rapidly than formerly. Why? Because they have been deprived of their hardening compounds, viz.: the calcareous salts! This has been done mainly by the kind of bread foods that have been partaken of. All of our cereals are so constructed as to be rich in carbonate and phosphate of lime; but the fashion now-a-days, is to throw this portion away, and give it to the cattle and swine.

It is the *outside* of all of our cereal foods that we ought to retain, and use the meal product of our cereals instead of the bolted production. If we will do this, then we will furnish the growing teeth with a pabulum whereby the soft solids of tooth structure *can* fill in their interstices with good inorganic substances that will make the teeth hard and strong, able to resist a greater number of disintegrating influences.

When ought this treatment to begin? Immediately with the mother as soon as conception has taken place, for the teeth begin to form as early as the sixth week. Then, when the fetus has been born, furnish it with pabulum, rich in calcareous matter. If fed upon human milk, the mother or nurse should partake of no bread foods that are not constructed out of the coarse or unbolted product of the corn, rye, oats or wheat that may be used. Corn meal, rye meal, oat meal, wheat meal; these are the chief sources from which the calcareous matter is to be derived. It has been so arranged in this form of food by the Almighty, that the calcareous salts are liberally supplied and of easy digestion and appropriation. There is no other food where a normal supply of earthy matter can be obtained.

But all babies cannot have good breast milk; what can be done for them? Good cow's milk is fairly good in nitrogenous matter, but contains too much and too *tough* casein for all infantile digestive apparatus. This is all right if the nurse will partly pre-digest it with pancreatine, but are they capable of so doing? A resort to artificial foods is had by many. Now, there are some eight different infant foods in the market, and I have found on analysis made by Prof. Stutzer, of Bonn, Germany, and published in the *Pharmaceut. Cent. Halle*, Berlin, 1886, which I desire to submit for examination.

STUTZER'S ANALYSIS OF EIGHT DIFFERENT INFANT FOODS.	CARNRICK'S SOLUBLE FOOD.	NESTLE'S FOOD.	MELLIN'S FOOD.	WELLS, RICHARDSON & CO.'S LACTATED FOOD.	HORLICK'S FOOD.	DR. RIDGE'S PATENT FOOD.	ANGLO-SWISS MILK FOOD.	IMPERIAL GRANUM.
Fat	5.00	4.66	0.50	2.19	0.60	1.27	2.37	0.80
Protein substances. Albuminoids	18.22	11.46	8.34	9.05	11.30	8.76	12.38	10.73
Hydro-Carbons. Dextrine, etc	67.74	76.69	79.29	78.44	79.04	80.45	76.03	78.88
Cellulose	......	0.10	0.58	1.54	0.55	0.73	1.09	0.97
Water	6.14	5.34	7.76	6.52	5.75	8.31	6.18	8.25
Salts and inorganic constituents	2.99	1.75	3.53	2.26	2.76	0.48	1.95	0.37
Amount of nitrogen in protein substances	2.915	1.833	1.335	1.448	1.809	1.403	1.981	1.717
Amount of protein substances readily digestible	16.45	11.09	7.38	8.35	10.85	7.97	11.20	9.55
Proportion of nitrogenous alimentary substances; protein = 1	1:4.4	1:7:7	1:9.6	1:9.2	1:7.1	1:9.3	1:6.6	1:7.7
Inorganic constituents contain. Lime	0.645	0.390	0.155	0.390	0.060	0.060	0.520	0.001
Inorganic constituents contain. Phosphoric Acid	0.874	0.630	0.583	0.688	0.421	0.260	0.800	0.167

The amount of protein substances in Nestle's Food is insufficient, being only 11.46 per cent., and the relative proportion between nitrogenous and other essential elements is, for instance, only 1.75 per cent. of inorganic salts, and of lime 0.390, and phosphoric acid only 0.640 per cent. This is a poor food for the petrous tissue, but not as bad as Mellin's in the last two constituents, or Horlick's, Dr. Ridges', and the last column.

Carnrick's Soluble Food is the easiest digesting food of the eight, represented by 16.45 per cent. This is an important item for every infantile digestive apparatus, and especially in cases of cholera infantum, bowel lesions, marasmus. This food is by far the best general tissue builder. It has the largest amount of nitrogenous substances, being the highest, 18.22 per cent., while one runs as low as 8.34. But it is for the petrous tissues—teeth—that we plead. In Carnrick's Soluble Food we find that the tooth-building pabulum is 2.99 per cent., with the largest proportion of lime—0.645—and phosphoric acid—0.874—of any of the foods. One of the foods has only 0.001 of lime, and 0.167 per cent. of phosphoric acid.

It is during the formation of the teeth, while they are growing, that the greatest amount of calcareous matter can be packed in and between the soft solids. Human teeth, in a large sense, are built up once for all. Hence the best results are obtained by furnishing the right kind of building material. If starch is the best, then feed starch. If cellulose is what is needed, then it is wise to furnish a good supply of this pabulum. Carnrick's Soluble Food is the only one free from cellulose.

The writer has given this subject of dietetics, as applied to petrous tissue building, considerable attention for many years, and he has never been able to find so good a substitute for mother's milk as he has in this Soluble Food.

It is of the highest importance that every tissue should be supplied, and especially the teeth. But we want nitrogenous and albuminoid substances and hydro carbons, but of the latter we must have it in the form of dextrine and not malt sugar. Malt and cane sugars are so apt to ferment in an infant's stomach that they should be little used. As everyone knows, if starches are converted into dextrin, they cannot ferment or pass through the intestinal tract partly digested.

Look at each column. Some of these foods are almost devoid of fat, and some will digest with the greatest difficulty. Some of these foods have a very large, a too large, per cent. of starch. These hydro-carbons, in some of these foods, run as high as 76.69, 78.44, 79.29, and 80.45 per cent. In no case should there be present, of the starchy elements, over from 68 to 70 per cent. Then again, there can be no question but that these starches have been converted into dextrine by baking them some eight hours at a temperature of 350° Fahrenheit. If the conversion of starch is carried beyond dextrine and into a malt sugar, it is almost sure to ferment in the child's stomach before it passes this viscus and enters the duodenum.

The amyolytic ferments found in the pancreatic and intestinal juices readily convert dextrine into soluble sugar, which can be, in fact is, ready to be taken up and appropriated. Starch, as dextrine, has had no chance to ferment. Some of these foods have, as we have said before, a very large proportion of starch.

There are three of these foods that are known as "milk foods,'t Carnrick's Soluble Food, Nestle's and Anglo-Swiss. But there is a vas' difference between them in easy digestion, and what we are particularly interested in is their ability to supply lime and phosphoric acid—the phosphate of lime is about 12 times greater in tooth structure than is the carbonate of lime—marble—for the petrous tissues. Carnrick's food is the richest in calcareous salts.

If the reader will refer to some of his acquaintances, who while young were brought up almost wholly on the meal products of the cereal food, partaken of with liberal regularity, he will find that my statements, resolved into *solid* facts, brush the cobwebs of supposed theory into nothingness. I can produce a physician in this town, about 40 years old, whose mother lived as has been suggested above, and the boy and man fed on the whole of the grain, who can exhibit as beautiful, regular and flint-like dental organs as ever graced the oral cavity of any human being. It is within the province of every physician to so direct the feeding of his young patients as to insure strong, flint-like teeth through life, if he will but take a little pains to thoroughly post the parents on the necessity of continued meal product feeding for the first twenty years of the young patient's life.

I wish to speak again of the great importance of the mother's partaking of the coarser varieties of bread foods. Whatever she eats of these foods, let the bread be constructed out of the *whole* of the grain. Some pregnant women do not eat any cereal food, having a distaste for it, yet did they fully understand the importance of furnishing the "inorganic constitutents" for the *growing* teeth to build with, they would soon remedy this serious defect in their food.

All children, from one year up, even as late as the thirtieth year, should partake liberally of the coarser bread foods. No bread, or food of any kind, should be allowed upon the table that had been made out of the bolted product of any of the grains.

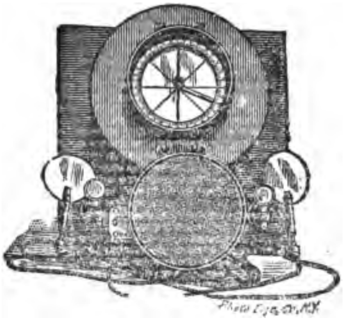
Oat meal, almost exclusively, should be given the younger portion of one's family for the morning meal. Then for the other meals through the day that form of bread as suggested above.

It is within the province of every physician to almost invariably insure a good and serviceable set of dental organs for his young and growing patients, and overcome in a large degree any hereditary tendency to frail, soft and rapidly decaying teeth.

89 SOUTH PORTLAND AVE.

GALVANI'S THEORIES PROVEN CORRECT BY THE NEUROMETER.

BY I. W. CHISHOLM, M. D., NEW CONCORD, OHIO.



It being an indisputable fact that nature, in the government of all her forces, has certain fixed arbitrary standards, and nerve, vital or electrical force being embraced in her series of forces, the thought occurred to me, reasoning from analogy, that for the government of this important force she had established a standard, and that in the realms of philosophy she had provided the means by which it could be demonstrated with that same degree of scientific accuracy that the thermometer measures the temperature. The thought was suggested that the current produced on the placing of zinc and silver plates in the mouth possesses a "*tension*," that from this non-utilized principle an instrument could be constructed by which we could be enabled to measure the vitality, with that same degree of scientific exactness that the established arbitrary measurements which we employ in the measurement of her other forces. After a long series of experiments I find that the "*tension*" thus produced corresponds or defines exactly the amount of nerve, vital or electrical force of the individual. After a thorough testing by myself, as well as by several learned and scientific gentlemen of our country, I am prepared to say that it is *strictly reliable.*

I am fully aware that there has been a long and hotly contested controversy between scientists as to the identity or non-identity of electricity and nerve force. The non-identical class endeavor to prove their position by taking out a section of nerve and inserting a copper wire, along which (the nerve and wire) a current of electricity will pass, but nerve force will not; to some this may prove conclusive, but I answer it in this way: Take a switch board in a telegraph office: over this atmospheric electricity will pass, but the galvanic current from the battery will not, but will pass to the instrument. The non-identical class will not attempt to deny that the current from the battery is electricity. They will then attempt to prove their non-identity by their different velocities, stating that electricity travels at the rate of 288,000 miles a second, while "nerve force" travels only about 111 feet in a second, but in this they are divided. Professor Kirke says: "nerve force travels along nerve fibers with immeasurable velocity." At a session of the British Association for the Advancement of Science, Professor Faraday said "that there was a time when he thought he knew something about the matter, but the longer he lived and the more carefully he studied the subject, the more convinced he was of his total ignorance of the nature of electricity." After this declaration from the most distinguished and illustrious electrician of the age, Mr. Bateman says: "the terms employed to designate the forms of electricity are mere conventional expressions."

Galvani claimed that "the convulsions of the frog were due to a vital fluid generated in the nerves, similar to the electric fluid, which he denominated animal electricity; that the nerves acted as so many leyden jars, and that the plates formed an arc, over which the fluid was conducted;" but Volta, a student of Galvani, never accepted this theory, but claimed that "the convulsions of the frog were due to the contact of metals," while Fabroni advanced the chemical theory, which has been generally accepted by the scientific world. Yet we have it on authority, well attested, that Galvani produced the same results, with similar metals, with but one metal, and without any metals at all.

Aldini, who was a zealous advocate of Galvani's views, during the controversy between the followers of Galvani and those of Volta, demonstrated the existence of such a current in other animals by the legs of a frog used as a galvanoscope; for this purpose he brought the lumbar nerves of a frog held in contact with the tongue of an ox, lately killed, while with the other hand, moistened with salt water, he grasped the ear of the animal lately killed, thus completing the circuit, when the legs were convulsed as often as the nerves touched the tongue. The same delicate electroscope shows similar excitement when the pendulous ischiatic nerves touch the human tongue.

We also find upon scientific record that Matteucci, of Pisa, in 1837, forty years after Galvani's original and correct opinion as to the vital source of this electricity, by a series of half thighs of frogs, produced a current sufficient to decompose iodide of potassium.

Du Bois Reymond, of Vienna, has demonstrated the existence of these currents in his own person. By taking discs of walnut wood and beet root, and blades of grass as conductors, a current can be produced.

To prove the correctness of Galvani's theory, take a needle that is non-magnetized and insert it into a nerve, and in a short time it will become sufficiently magnetized to pick up iron fillings. I have produced currents with similar metals; with wood and zinc plates, and without any plates at all, simply surrounding the needle with the hands.

Professor Silliman, in speaking of the plates, does not say they generate electricity but *disengage*.

Electricity is taken into the body by the food, drink, and the air we breathe, is then taken up by the iron in the blood and stored in the brain, and is then sent along the nerves by the action of the mind to the different structures of the body, the "nerve centres" being analogous to so many batteries.

By changing the size of the plates or the chemical condition of the mouth, the quantity only will be affected (which is not called in question), but the "tension" will remain the same. But, laying aside all theories, the question resolves itself into this, does the neurometer measure the exact amount of nerve, vital or electrical force, or organic life in the body, or does it indicate whether a person is improving or declining? I say most emphatically that it does, and challenge the scientific world to contradict it.

CLEANSING THE HANDS.—Dr. Vogel, of Eisleben, writes that he has noticed that coppersmiths, tinsmiths, etc., whose hands become covered with a dirt from working in oxides and acids that cannot be removed by ordinary means, first rub their hands with warm oil and then, when this has thoroughly penetrated, with powdered borax. Subsequent washing with soap and water make the hands perfectly clean. He advises those who have to use carbolic acid to go through the process above described first, and claims that in this way (1) disinfection is more thorough; (2) the hands are made purer than it is possible to make them by soap alone; (3) the hands remain soft and free from rough epidermic scales, and the odor of carbolic acid is destroyed; (4) the uncomfortable anesthesia of the hands, after washing with carbolic acid, is avoided.

MEDICAL APHORISMS.—A correspondent of the *Canada Lancet*, signing himself "Artz," says that he came across the following professional aphorisms of Amedee Latour, which are sufficiently curious and shrewd to merit reproduction:

1. Life is short, patients fastidious and the brethren deceptive. 2. Practice is a field of which tact is the manure. 3. Patients are comparable to flannel, neither can be quilted without danger. 4. The physician who absents himself runs the same risk as the lover who leaves his mistress; he is pretty sure to find himself supplanted. 5. Would you rid yourself of a tiresome patient, present your bill. 6. The patient who pays his attendant is but exacting, he who does not is a despot. 7. The physician who depends on the gratitude of his patient for his fee, is like the traveler who waited on the bank of a river until it finished flowing so that he might cross to the other side. 8. Modesty, simplicity, truthfulness! cleansing virtues, everywhere but at the bedside; there simplicity is construed as *hesitation*, modesty as *want of confidence*, truth as *impoliteness*. 9. To keep within the limits of a dignified assurance without falling into the ridiculous vauntings of the boaster, constitutes the supreme talent of the physician. 10. Remember always appear to be doing something—above all when you are doing nothing. 11. With equal and even inferior talent the cleanly and genteely dressed physician has a great advantage over the dirty or untidy one.

PREPARATION OF BAKED BEANS.—Dr. Ephraim Cutter, in a recent article on the nutritive value of this favorite New England dish, gives the following rules for preparing it in the genuine "down east" style:

"Soak a quart of beans over night in two quarts of cold water. In the morning turn off the water, add fresh water, and boil them till the membrane begin to separate; turn off the water. Put the beans in a baking pot, with half a pound of salt pork buried in the beans; add two tablespoonfuls of molases, and cover the whole with water. Bake in a slow oven all day; a baker's oven is best. Watch the beans, and, if they become too dry, add more water. When thoroughly cooked, it will be known by the softness of the beans in the mouth between the teeth, by the taste, and by the microscope showing the starch grains broken up and mixed in one homogeneous mass that will not polarize light with a selenite plate. Take time to eat, and chew thoroughly.

"After eating go out in the open air and walk or work. Do not go to church after eating baked beans; they will stay in the stomach, and their indigestion will do much toward spoilng the enjoyment of the exercises. Dyspepsia and religion do not go well together."—*Medical Annals.*

OBSTETRICS.

PLACENTA PREVIA. (Dr. Robert Barnes, in *Br. Med. Jour.*)—The conflicting ideas urged as to the proper treatment prove that the true theory that can alone govern a rational scheme of treatment of this trouble is not yet fairly recognized.

It will be my endeavor to put this fundamental point in a clearer light. I cannot better expose the unsettled and irrational practices that prevail than by briefly stating some of them.

Some still advocate the old "*accouchement force*," pure and simple, or with slight mitigation, and these have the recent authority of Spiegelberg.

Schroeder, perhaps the greatest representative of modern German obstetric science, sums up the treatment thus: "Rupture the membranes, draw down a foot, and wait during the extraction."

Some contend that the whole treatment consists in bimanual turning. This operation finds, as I long ago pointed out, useful application; but it is really the "*accouchement force*," mitigated. Some think the whole treatment consists in plugging.

The following criticism by Ludwig Miller in his work on *Placenta Previa* (1877) is, with few exceptions, singularly just: "Smellie did not follow any one method exclusively, but acted according to the indications of the case in hand. In this he made a step in advance, which places him higher than all his predecessors, and many of his successors."

It may be urged generally against the more rapid or forcible methods that they are fraught with danger to the child. Following the practice of the elder Simpson, and of some of the older teachers, those who advocate these methods assume that the conditions are so perilous to the child that they are justified in leaving the child out of consideration, well satisfied if they can save the mother.

I cannot stop to discuss the fallacies which entangle this argument. I will simply state, as the result of extensive clinical experience and anxious casuistical analysis, that those methods which are the most successful in saving the mother, are often exactly those which give the best chance to the child. Here, as in other of the great clinical problems in obstetrics, the guiding principle should be to seek for a solution which offers the greatest security for both mother and child, not condemning either.

It is no longer permitted to us, without ample proof of clear necessity, to sacrifice the child in order to save the mother. The cases in which the two lives are supposed to stand in antagonism are vanishing before the light of modern science and skill. And in no conjuncture is this more true than in the treatment of placenta previa. Countless infants have been sacrificed on the altar of false theories. My own experience gives 33 per cent. of children born alive; and that, concurrently with a larger saving of mothers than has been secured by other methods.

A gross fallacy, which vitiates the teaching and practice of many men, is to regard the particular manipulation which they most effect as constituting the whole treatment of placenta previa. If they had grasped the true theory, and had the faith that leads to action, they would have seen that there is no one method of treatment, but that several operations come into use in accordance with the stage of the labor, and the particular conditions of the case in hand.

Since I first sketched my theory of placenta previa in the *Lancet* in 1847, and especially since the publication of my Lettsomian Lectures in 1857, the leading idea of that theory has been largely recognized. Thus it is now admitted that there is a well-defined boundary between the lower zone of the uterus and the body of the uterus proper; and that the lower zone is distinguished from the upper zones of the uterus by peculiar attributes.

The theory of placenta previa, developed from my original conception, is summarized as follows:

The pregnant uterus is divided into three zones: the upper or fundal, the equatorial, and the lower. The fundal zone is divided from the equatorial by an imaginary line, the upper polar circle. This line has not been anatomically demonstrated, nor has it been recognized by anyone but myself; but it serves to mark a distinction, which I believe is real, between the properties of the upper and the equatorial zones in their relations to placental attachment and to hemorrhage.

The equatorial zone is divided from the lower zone (commonly, of late, called the lower uterine segment). This is Barnes's boundary-line (1847–1857), since then sometimes called Braune's os internum, Bandl's ring, or Schroeder's contractions-ring.

The fundal zone is the seat of fundal placenta, the region of safest and most typical normal attachment. The equatorial zone is the seat of lateral or equatorial placenta. It disposes, I believe, to what is called accidental hemorrhage, but may be fairly regarded as a comparatively safe normal attachment. This is still more true when the placenta is attached partly in the fundal zone and partly in the equatorial. Danger especially begins when the placenta decends partly into the lower zone. This constitutes partial placenta previa. The part of placenta invading the lower zone is liable to premature separation. Complete placenta previa, or placenta previa centralis occurs when all or the greater part of the placenta grows within the lower zone, and covers the os internum.

In such cases as the last the gestation may not inaptly be called ectopic, inasmuch as the ovum, or an important part of it, is developed in the lower zone of the uterus, a region not adapted by nature for the process.

I will not attempt a discussion of the various theories emitted as to the cause of the hemorrhage. I will only state briefly some of the conclusions, more or less provisional, at which I have arrived. We may fairly start from two fundamental propositions: 1. The source of the hemorrhage is the uterine vessels. 2. These vessels are torn across by the detachment of placenta from its uterine connection. The difficulty is to demonstrate what causes this premature detachment. It is contraction of the uterus, causing such a diminution of its area that the placenta cannot follow. If this diminution of area of the uterine wall be the cause, we must postulate active uterine contraction. This is usually assumed to take place. No doubt sometimes it does. Possibly the frequent peristaltic movement of the uterine wall may occasionally pass the normal limit, and thus a degree of contraction may occur sufficient to throw off adhering placenta. Possibly uterine contraction more active, even spasmodic, may occur. But it is a matter of clinical observation that in many cases hemorrhage sets in before there has been any obvious contraction of the uterus. It comes on when the subject is asleep; she is awakened, not by pain, but by the flooding. The most frequent time is at a menstrual epoch. One factor then presents itself: increased vascular tension. This tension disposes to rupture of the vessels. This rupture takes place at the weakest part, that is, in the vessels running between the uterus and the placenta.

Another factor cannot be overlooked. The spongy cellular structure of the placenta favors accumulation of blood in it. The uterine arteries continue to pump in blood, but the return by the venous sinuses does not keep pace with the inflow. Hence the rapidly distended placenta becomes larger in area than the corresponding area of uterus. Frequently the distension of the placenta is so great that its cavernous structure gives way, and there is hemorrhage into the substance of the organ. Thus the placental bulk becoming suddenly too large detaches itself from the uterus. This process does not necessarily involve, in the first instance, contraction of the uterus. Contraction is, indeed, pretty likely to follow under the reflex irritation induced. But it does not always follow, at least not to any appreciable degree. Why does the flooding so often persist? Because contraction does not set in.

The form of contraction that prevails in the lower zone or segment is retraction. Longitudinal muscular fibres are continued from the middle zone along the walls of the lower zone, even into the cervix and vagina. Their action is to pull up or retract the lower zone, opening the cervix, thus aiding the driving power of the body of the uterus and the abdominal muscles in canalising the passage and forcing the fetus through it. When this retraction is retarded there is hemorrhage; when retraction goes on well hemorrhage ceases. An obstacle to efficient retraction is the morbid adhesion of the placenta. Detach this, and frequently, the vital power not being reduced too low, efficient retraction sets in. This is a matter of direct clinical observation, that is, to those who have the skill and courage to observe, not blindly thwarting Nature by rushing to the brutal expedient of "forced delivery." Those who intercept the natural order of a physiological process are not entitled to give evidence in contradiction of those who have watched the process throughout. They are out of court.

There is still another condition of the placenta that disposes to self-detachment. This is alteration of its texture from fibrinous indurations, fatty degeneration, or other condition impairing the natural homogeneity. In my *Obstetric Operations*, I started another theory of the cause of premature detachment and hemorrhage; this is that the placenta, growing more rapidly than the corresponding uterine area, shoots out beyond this area, and so leads to detachment. It has been objected that there is no proof of this. It is true there is no direct proof; but, on the other hand, it is not disproved by simply denying it; and the argument from analogy with the history of tubal ectopic gestation is very strong. In cases of this kind the rupture of the sac and hemorrhage take place mainly because the sac is not adapted to keep pace with the rapid growth of the ovum about the third month; the sac bursts, and there is effusion of blood. Now I have shown that placenta previa is a form of ectropic gestation. It is a legitimate deduction that the processes of both are similar.

The case may be summed up in the following propositions:

1. The hemorrhage comes mainly from the bared uterine surface, and is arterial. (Simpson thought it is from placenta.)
2. In the progress of many labors, there is a stage when the flooding is spontaneously arrested. (The old dogma was that the hemorrhage was unavoidable, and must go on until delivery, and this dogma still governs the practice of many men, precipitating them into rash action.)
3. This spontaneous arrest does not depend upon total detachment of the placenta, nor upon death of the child, nor upon syncope of the mother, nor upon pressure upon the lower segment of the uterus bared of placenta, although one or more of these conditions may favor it.
4. The constant conditions of this physiological arrest are contraction of the uterus, active or tonic, thrombosis, or clotting at the orifices of the vessels, and
5. The physiological arrest of flooding is neither permanent nor secure until the whole of that portion of the placenta which had adhered within the lower zone is detached, this being the portion which is liable to be detached during the opening of the lower segment of the uterus to the extent necessary to give passage to the child. The limit of dangerous placental attachment corresponds to the equator of the child's head. Below it, the lower segment must dilate; above it the placental attachment is normal, and the region need not and does not dilate. On the contrary, it contracts to force the child into the lower zone, which undergoes canalisation, continued by the cervix and vagina.

This boundary line, revealed to me by close clinical observation and physiological study, has been demonstrated by anatomical research by others. The illustrations exhibited show this. My boundary line, described in 1847–1857, and many times since, became Braune's os internum in 1872, Bandl's ring in 1876, and more lately Spiegelberg's lower boundary of contracting part of uterus, and Schroeder's "contractions-ring." I think I am entitled to claim it as my discovery, if priority goes for anything. But I go further, and submit that these and other writers, although recognizing this fundamental fact of a definite boundary line, and attaching their names to it, have failed to grasp its full significance. Had they formed a clear conception of its importance, they would have drawn the obvious therapeutical deduction, and would have made it the guiding principle of treatment. Instead of this, their treatment remains simply empirical. Imperfect in physiological conception, it is barren in therapeutical issue. Attempts have been made to define the extent of the lower zone by measuring the distance from the os internum to the boundary line. These are based upon the fallacy that all cases are alike. The uterus and the fetal-presenting part vary in absolute and relative proportions, according to the development of the uterus and the size of the child. It is idle to pretend to fix a constant boundary line, measured by tape or rule. My estimate is based on the observation of cases at term, and the measurement of fetal heads at the equator. The true limit is the height from the cervix to the equator of the fetal head.

6. When this stage of detachment has been reached, by Nature or by art, there is no physiological reason why any further detachment or flooding should take place until after the expulsion of the child, when, and not till then, the remainder of the placenta, which adheres to the middle and upper zones of the uterus, is cast of, as in normal labor. This preservation of the connection between placenta and the body of the uterus is commonly enough to preserve the child. It is chiefly in the extreme cases of central placenta previa, in which the placenta is in greater part or wholly within the lower zone, or when, as not seldom happens, labor sets in prematurely, that the child's life is compromised.

7. Adhesion of the placenta over the os uteri internum impedes the regular dilatation of the part; and, consequently, whilst such adhesion lasts, the ordinary course of labor is hindered or perverted.

8. Injury and inflammation of the uterine structures, particularly of the cervix, are especially likely to ensue upon delivery in placenta previa. One of the purposes intended by Nature, in fixing the seat of the placenta in the fundal and equatorial zones, is the preservation of the parts, rendered highly vascular by connection with the placenta, from distension and contusion attending the passage of the child.

The treatment logically flowing from the foregoing physiological propositions is set forth in the following therapeutical propositions:

1. The greatest amount of flooding frequently takes place at the commencement of labor, and frequently even before there is any clear indication of labor; generally at what would have been a menstrual period. The cervix is always, from its being near the seat of placental attachment, highly vascular, and is frequently at this stage very rigid. Any attempt to force the hand through this structure at this stage, to detach the whole placenta or to deliver, must be made at the risk of injuring the womb. The dragging the child through the cervix, even when it has not been necessary to pass the hand into the uterus, is a proceeding affording slender chance of life to the child, and fraught with peril to the

mother. Hence the indication to pursue a course of treatment as free from violence or precipitation as possible.

2. The entire detachment of the placenta is not necessary, and is not to be depended upon, to arrest the hemorrhage. (Since my demonstration of this point, Simpson, I believe, abandoned the practice, and I do not think anyone advocates it.)

3. Since the dilatation of the cervical portion must take place in order to give passage to the child, and since during the earlier stages of this necessary dilatation hemorrhage is liable to occur, it is desirable to expedite this stage as much as possible, avoiding violence.

4. In cases where labor appears imminent, with considerable hemorrhage, whilst the os internum uteri is still closed, the arrest of the flooding and the expansion of the os may be promoted by rupturing the membranes and the use of tents.

5. Since a cross-presentation or other unfavorable position of the child is apt to impede or destroy the regular contractions of the uterus, which are necessary to arrest the flooding, it is mostly desirable to deliver as soon as the condition of the os uteri will permit.

6. In some cases the simple use of means to excite contraction of the uterus, as rupturing the membranes or the employment of galvanism, may suffice to arrest the hemorrhage.

7. In some cases in which it is observed that the os uteri has moderately expanded, or to a diameter of 1.25 inch, the placenta being felt to be detached from the lower zone, and the hemorrhage having ceased, it is not necessary to interfere with the course of labor, now become normal. Hemorrhage rarely persists after full canalisation of the passage.

8. At the critical period, when the total detachment of the placenta or forcible delivery is dangerous and impracticable, the introduction of the index finger through the os and the artificial separation of that portion of the placenta which adheres within the lower zone, is a practicable and safe operation.

9. The artificial detachment of that portion of the placenta which adheres within the lower zone will at once liberate the os internum from those attachments which impede its equable dilatation; and by facilitating the regular contraction of this segment of the uterus, favor the arrest of hemorrhage, and convert a labor complicated with placenta previa into a natural labor.

10. The immature uterus, partly paralyzed by loss of blood, cannot always be trusted to assume the vigorous action necessary to effect de-

livery; it is, therefore, necessary to aid canalisation by dilating the cervix artificially; this can be done safely and quickly by my caoutchouc water dilator. This has come into general use, and the testimony in its favor is conclusive. But one or two German teachers say it is not effective. The bags they have tried must be bad specimens, or skill in using them was wanting.

11. Sufficient dilatation being obtained, delivery may, if necessary, be accelerated by forceps, by turning, or by embryotomy, according to the special indication dictated by the condition of the child. If turning be resorted to, I insist strenuously upon the importance of delivering the after-coming head by the forceps, if there be any difficulty or delay in the passage of the head under manual traction. The forceps so applied takes off the constriction of the imperfectly dilated cervix from the child's neck; and traction bearing upon the head, facilitates moulding and takes off all strain from the neck; axis-traction also is to be observed. In my hands this proceeding has contributed materially to the saving of the child.

The measures that come into successive use are:

1. Rupture of the membranes.
2. Apply a firmer binder over the uterus.
3. A plug may be used to gain time, but it must not be trusted; watch closely.
4. Separate all the placenta that adheres within the lower zone, and observe closely. If no hemorrhage, wait awhile. The uterus may do its own work; if not, dilate the cervix by the water bags. Again pause and observe. If nature fail to deliver, we resort to the forceps, which gives the best chance to the child, or turn.

In following this order of proceedure, we strictly follow the law of physiology. We do not force nature, but obey her. Current medical literature is full of examples proving the value of these precepts, and not a few cases published as illustrations of the success of other methods, especially of turning, are more correctly explained by the fact, probably in many, certain in some, that in carrying out the operation of turning, the placenta had been detached from the lower zone. Where the principles enunciated by me have been thoroughly and intelligently observed the success has been unexampled.

An emphatic illustration of the treatment advocated by me is found in the following summary of the experience in placenta previa in the practice of St. Thomas' Hospital, for 1887: "Five cases occurred during the year. In one case there are no particulars; in two the placenta was partially separated, and delivery effected by forceps; both children were saved. In two the placenta was partially separated; version was performed, and the children were lost; all the mothers recovered. The lesson to be learned in these cases is well shown, namely, never attempt version if the head is presenting, and hemorrhage has been stopped by the partial separation of the placenta."—*Arch. of Gynecol.*

MEDICINE.

THE DIFFICULTY OF DIAGNOSIS BETWEEN DISEASE SYMPTOMS AND DRUG SYMPTOMS. (Alfred Carpenter, M. D., M. R. C. P., in *British Medical Journal.*) The difficulty in diagnosis between symptoms produced by disease and those produced by drugs is not always an easy task to settle, even by experts. It is not always easy in the police cell to distinguish between a so-called "dead drunk" person and one who is laboring under the effects of compression of the brain, caused by rupture of a cerebral vessel, or of compression produced by fractured skull. But this is not so difficult as is the task which the physician has to contend with, when called in to advise with another practitioner who has been freely exhibiting active remedies before the second opinion is sought for, or when the patient has been physicing himself with ardent spirits or other narcotics.

Having met with these difficulties on several occasions, I propose to consider one or two of them, and to detail to you some that I have met with in which the treatment, having been based upon imperfect information, was rapidly tending to poison the patient, and certainly would have done so if a change of treatment had not been made. The use of the thermometer, a careful examination of the heart sounds and the character of the heart's impulse, the condition of the respiratory function, the state of the skin, the action of light upon the pupil, and the smell of the expired air from the lungs, will always enable the skillful surgeon to be certain about the police case, unless there is drink and compression combined (not a rare state of things). It is always right to err on the safe side, and to give the patient the benefit of the doubt, if there is any;

though it is very unlikely that severe mischief can be produced to the brain, even if the man be drunk, without there being some evidence of its nature, if it be looked for. However, it is not my intention to enter into the consideration of police cases, so much as to refer to some other conditions which the medical practitioner occasionally meets with in the sick-room.

I propose to detail two typical cases for your consideration, just as I met with them, but for manifest reasons giving no public clue to their whereabouts.

The first was that of an eminent merchant with numerous family connections, 65 years of age, a *bon vivant*, well known as a hospitable host as well as a genial guest. I am at his bedside in consultation with his ordinary medical attendant. He is semi-comatose; he has been so for twelve hours. His friends have been summoned from different parts of the country in the expectation of his death. There is general anasarca, some oppression of breathing, but a fair pulse, regular in its beat, 78 per minute; there is an aortic murmur with the first sound of the heart, but not very loud. The patient was able to be roused if spoken to loudly, and then dimly understanding what was said to him, but lapsing again into stupor; the eyes responded equally to light, and contracted to a point, equally dilating again on its removal: the conjunctivæ were turgid, the skin dry and felt hot, but the temperature, as taken in the mouth, showed that it was below normal, namely, 97.8°. The urine was very albuminous; the bowels had been freely relieved, indeed there had been slight relaxation for some time previously to the onset of his semi-coma. He had complained of feeling faint when the bowels acted; had for some days taken freely of stimulants, principally champagne and brandy, and since the previous day had swallowed about twenty-four ounces of the latter. He had passed at least three pints of water in the preceding twenty-four hours, and it was dribbling away slightly into the bed at the time of my visit. A catheter was introduced into the bladder and a portion drawn off, which was seen to contain about a quarter albumen after boiling. The comatose condition did not appear to me to be caused by uremia, as there had been no arrest of urinary secretion, but the contrary, and there had been also relaxed bowels. The faintness was not caused by any serious heart embarrassment, for that organ, though probably fatty, and with aortic valves imperfect, in consequence, as I supposed, of atheroma, was doing its duty. I came to the conclusion that the coma was rather the sequence of alcoholism than that of uremic poisoning. I advised the cessation of the brandy treatment, which had really been pressed by the friends and nurses rather than the doctor, because it had been advised some time previously by an eminent London physician. I advised the administration of ammonia in its place, in minute quantities, with liq. potassæ, also in small doses. I urged the continuance of intestinal evacuations by means of assafetida injections, with small quantities of turpentine, and suggested a milk diet only. The following day the coma had lessened. It disappeared in forty-eight hours, and symptoms of gout manifested themselves a few days afterwards in the hands and elbows, whilst the respiratory difficulty diminished. The patient made a fair recovery in a few days from the imminent danger in which he was placed, and the anasarca lessened. He had, however, too much gout in his kidney, and atheroma in his aorta, to become convalescent; though he lived for four years after the time at which he was being rapidly poisoned by alcohol. The belief that the coma was due to the brandy, and not to the presence of uremic poisoning, was thoroughly established by the result. Fortunately the kidneys did not immediately resent the excessive intrusion of the stimulant, for they continued to act freely, though the water was albuminous as long as he continued under my observation; the general dropsy declined, the aortic insufficiency, however, was not improved, and he remained for a long time incapable of exertion, though he did recover so much as to be able to take his place at the dinner table again, and ultimately fell a victim to the renewal of his social habits of life, and a return to the pleasures of the after-dinner wine.

In this case, as in some others which I have met with, the aortic insufficiency has seemed to me to have been dangerously added to by the alcohol; and that in such cases, especially when there is gouty habit with albuminous urine, it seems to produce its comatose tendencies more rapidly than in other people, and in such cases I believe that all alcoholic stimulants should be rigorously withheld. This patient had been advised to take gin, by an eminent London physician, and for some weeks before the time at which I saw him had taken something like a pint a day, in the place of the port and brandy to which he was addicted. He could not, or would not, continue an abstaining course, for he preferred his port wine and obliviousness to discomfort and continuance in the flesh, though I am certain he would have lived some time longer if he had followed on the other tack, and even might have had a chance of recovery if he would have continued his abstinence, and have avoided those causes which tended to produce atheroma; for a kind of gluttony was indulged in, as well as a liking for wine.

The second case is altogether different in character, but quite as marked.

It is that of a young student who is working at his college; he comes home in consequence of inability to continue his mental labor, and with a feverish attack. He becomes ill, and I see in him what is considered to be the fifth day of an attack of typhoid fever. He is restless, has severe headache; his eyes are brilliant, and pupils somewhat inactive to the stimulus of light; his skin pale, and temperament leucophlegmatic. He has not slept much for some week or two, and talked a little at random on the preceding night. His pulse 102, running and thready; temperature 102.4°; tongue very moist, but little furred, and slightly swollen. He is not particularly thirsty. There is some tympanites; skin dry; bowels confined. He had vomiting for a day or two at the first commencement of fever, but the sickness is gone, and he does not care for food, though he enjoys cold drinks. The urine somewhat scanty, high-colored, but loaded with lithates, and non-albuminous. I regarded it as one of those cases of typhoid in which cerebral symptoms were likely to develope very rapidly, in consequence of the brain having been over-excited and not purifying itself from the consequences of its work. Every case of this kind which I have met with which had been treated with stimulants had died, sometimes after violent and continuous delirium, ending in subsultus and unconsciousness for twenty-four hours or more before death.

I advised, therefore, that all alcoholic beverages should be laid aside, and the case treated with salines, bromide of potassium, and milk; whilst we should relieve the loaded bowels by gentle aperients, and watch for complications. The heart sounds were normal, but there were some mucous *rales* in the chest, which were uncomfortable at so early a stage of the fever.

The case, after two or three days of suspense, ran a satisfactory course; the bowels were relieved by slight laxatives, the restlessness subsided, fair sleep was obtained, the characteristic rash came out about the ninth to the fourteenth day, with slight diarrhea; the tumid abdomen subsided, the tongue lost its swollen character, and on the nineteenth day (when I saw him for the third time) was clean. The temperature being 99.8°, the skin acting freely, and the appetite becoming more keen, so much so that I said to the mother, "In two or three days you will be altogether out of the wood." Two days afterward I had a telegram, saying: "Come as quick as possible; my boy is dying." I went that afternoon. One of his medical attendants met me at the station, and said at once: "I dont know what has produced the condition, but H. is comatose. He was very excited yesterday, wanted to get up and go out, insisted upon doing various things, was violent in the night, and to-day has been unconscious since 10 a. m." (this was at 4 p. m.). I found him as reported; the conjunctivæ were turgid, and non-resistent when the finger was placed on them, the pupils were contracted to a point, the skin was hot and dry, the face flushed, and the patient took no notice whatever of those about him, but the pulse was full and steady (88), not like to that of a dying man, the heart-sounds normal, the breathing steady, but inclined to stertor. The bowels had acted freely two or three times the day before, and there had been a free secretion of urine, and it continued free from albumen. The temperature had been taken several times since my visit two days before. The same night it sank to 98.4°, in the night it was 98° only, yesterday it sank to 97.6°, then in the evening it was 96.8°, and now I find it 96.2°. The medical attendants had viewed this fall of temperature with some alarm, and, acting upon an implied consent to the administration of alcohol, had allowed him to have champagne the day before, with the natural result of a still lower temperature. Since last night he had had eight ounces of brandy, in addition to the half bottle of champagne which he had insisted upon having, and which fact the nurses had not communicated to the medical men in attendance. The error arose from my inadvertent consent to his urgent entreaty that he should be allowed a little claret and water on the occasion of my third visit. He had had that claret and water; it gave him a restless night, reduced his temperature below the normal standard, and, from a mistaken idea that alcohol would elevate the temperature, it was administered more freely the next day. The restlessness and excitement were increased; those symptoms were looked upon as reasons for increasing the dose of the stimulant, until at length its narcotising properties were forthcoming. Perhaps he might have slept off the effects, and have recovered in spite of the treatment, which then in that case would have been regarded as the cause of the recovery. Having carefully considered all the points with his medical attendants in another room, I came to the conclusion that the coma was caused by his so-called remedies. I went back to his bed-room, and giving him a good shake, called out quite loudly, "H——, old boy, how are you?" He heard me, and opening his eyes looked at me with a tipsy leer, said, "Oh! is it you?" and lapsed again into insensibility. I was quite satisfied as to the condition, but felt myself on the horns of a dilemma. However, I asked his medical attendants to leave me to get out of the difficulty without casting any reflection upon their treatment, having pointed out to them the real state of the case. It was my duty to restore the patient, not to make reflections. I saw the mother downstairs; I told her that of course there was jeopardy, but that I thought the danger more apparent than real; that we should discontinue the stimulants which had been given, as not being efficient enough to meet the severity of the case, and that I proposed to give him a more powerful remedy—a single drop of the strongest liquor ammoniæ every half hour. I advised that he should be made to swallow as much liquid as could be managed in the form of tea and milk and potass water, and with external appliances I hoped to find to-morrow that he had recovered his consciousness, and that he would be restored to her as I had promised on my preceding visit.

There was no idea on the part of the parents as to the error that the nurses, rather than the doctor (for there were two experienced women in charge of the case), had committed, and I had the pleasure the next day of finding my anticipation correct; the coma was gone, headache and *malaise* alone remained, the temperature had risen to 98.4°, there was slight tumidity over the abdomen, the bowels had not acted, but the tongue was moist, a little whiter than normal. He had slept, however, for some half an hour at a time after several small doses of bromide of potassium, and two days afterwards was sitting up in bed, and suffering from nothing but a ravenous appetite and general debility.

I have brought these typical cases to your notice for the purpose of showing that one must not always assume that the symptoms in the case are those of the disease which you are called upon to treat. You must ask yourself whether they are masked by previous treatment; patients and their friends will treat themselves before the doctor is sent for, and in cases in which a consultation is sought for, either at the instance of the medical attendant or of the patient's friends, the former may have exhibited larger doses of powerful remedies than he is aware of, and the symptoms of the remedy may be masking the character of the disease. I have seen this in at least two cases in which belladonna had been given in excess. Narcotics and stimulants are the most usual medicines which have been prescribed, especially the latter. The reduced temperature, the moderately quick pulse, the contracted pupil, the flushed conjunctivæ, the dry skin, and the headache, may all be added to or produced by the remedy used, and may therefore mask the disease and cause erroneous views as to nature, prognosis, and necessary treatment. We can only act upon the information afforded, and if deceived, either wilfully or by ignorance, it is the patient who suffers as well as the reputation of the physician who is consulted.

I am satisfied that it is far better to allow disease to run its course in a natural way, and to pilot the case through the blood storms which the disease may be setting up, rather than by rendering the nervous system less sensitive to the influences of disease by deadening the activity of those nerves, and whilst so deadened allowing disease to establish itself, and so organic change may take place, never to be entirely removed. This appears to me to be the effect of the alcoholic treatment of disease. It is better for the patient to endure the discomfort, and ultimately get quite well, than to be comforted, as it is called, by the use of intoxicating liquor, and so allow real disease to gain a standpoint, instead of treating upset which arises from the functional disturbance caused by the determination of natural laws to assert their predominance, and so to lead a perfect cure.

A BRITISH OPINION OF TRAINED NURSES.—When trained nursing became a recognized calling it was ushered in with the happiest omens, and perhaps a little too much flourishing of trumpets. Miss Florence Nightingale had endeared herself to all civilized people by her self-sacrificing heroism, and her example attracted many who were quite willing to accept the deserved eulogies bestowed on the pioneers of the calling, who, be it remembered, worked most unostentatiously. To-day everything is changed, nursing becomes a "profession," and nursing institutions seek a royal charter; lady nurses write queries to medical journals, and express doubts as to the proper treatment of cases. From being the bidable, cheerful worker the modern nurse has become aggressive and captious. We have known a lady nurse to waken, by shaking, a patient from a profound sleep, where sleep was essential for recovery, because she did not approve of the dose of the hypnotic given. The time has come to speak plainly, and the profession should recognize the truth that there is an unwise silence as well as an unwise speech. Trained nurses know just enough to make them dangerous when they attempt to practice in our absence, and this modicum of knowledge is quite sufficient to render them talkative, self-assertive, insubordinate.—*Medical Press.*

SEA-SICKNESS.—Dr. J. J. Leiser writes in *British Medical Journal*: On a recent voyage across the Atlantic, I made some observations on the matter of sea-sickness. It was evident to me, first, that respiration was imperfect; it was governed by the motions of the boat. One not used to the sea, and the same with him not used to a high sea, holds his breath as the ship is tossed up or down, catching it only at the turns, or, if the waves are great, only gasping for it. Thus are the respirations infrequent and imperfect, with very apparent results. The blood so inadequately aerated must necessarily be poisonous to the brain, and the sympathetic sickness is quite understandable.

The experiment I made seemed to prove that the irregular respiration was not secondary to the sickness. A system of regular, free breathing prevented sickness, or rapidly relieved it. One must sit and give his attention to it, must breathe to time, with full and regular inspirations and expirations.

I will discuss no theory, but I am able to add the following letter of Dr. Stockman and Dr. Prentice, who repeated my experiments.

"Dr. J. J. Leiser—Dear Sir:—After leaving Queenstown on Sunday we passed into a very heavy sea. So disagreeable was the roll that the meals were almost deserted. According to promise we took the opportunity to experiment on your theory of sea-sickness. The ship's surgeon only smiled at our suggestions, he having heard scores of cures that proved invariably valueless. Nevertheless, we went to work and secured ten unfortunate individuals whose gastric regions were going through convulsive contortions, and making their lives miserable. We seated our patients on deck, on the fore part of the ship, where the pitch was most considerable. Dr. Prentice seated himself with five, and I took the other five under my care. We timed the breathing in the following manner: We raised the hand from the knee, indicating an inspiration, and down again for an expiration. We had a quarter second stop watch, and timed the respirations to exactly twenty per minute. At the expiration of one hour the active symptoms in each case had entirely subsided. Of course this does not mean that all the faintness and tendency to nausea in each case had subsided; in a few of the cases these still continued. By this time we had thoroughly educated our patients in the *modus operandi* of the cure. With one exception, a case at first the mildest of the ten, but who obstinately kept his berth, and refused to continue the treatment, and remained sick throughout, the cases continued permanent cures.

FACE MASKS, ROUGE AND SKIN WASHES.—The *American Analyst* of March 1, 1888, reports that of the numerous "face masks," "beauty masks," "complexion balms," "medicated pastes," "blooms of youth, beauty or loveliness," "Lola Montez secrets," not one is good in any respect. The very best is without value. From this they range down to the depths of an injuriousness and ghoulish action. The best consist of an oil, fat or glycerine, with some perfume, and a trifle of gum benzoin, camphor, or other drying substance. These are simply nasty. Their action is the same as of lard or butter smeared thickly over the face of the user. The rest are dangerous as well as disgusting. They contain the same ingredients as the face powders denounced, and are even more pernicious in their action. Lead colic, lead paralysis, mercurial ulcers, arsenic sores, boils, carbuncles, abscesses, putrid glands, salivation, sudden baldness, and even more serious ills, can be traced to their use, and will invariably accompany that use as long as the human body remains as it is to-day.

Of the rouge preparations, those made from cochineal and madder are harmless. All others are bad, very bad, and horrible. The "eau de vinaigre," "rouge vinaigre," "camphor wine," "red pepper wash," "capsicum elixir," and the like, which depend for their effect upon irritating the nerve corpuscles, are unobjectionable to the physician and the chemist. The new preparations, which are solutions of aniline and other coal tar colors, are poisonous and should be prohibited by law.

There is little or nothing to be said against the washes used to remove pimples and blackheads. They are usually made by dermatologists of good standing, and do their work properly, and in a reasonable time. It is far better, however, to depend upon a fine toilet soap or dilute ammonia, gentle but persistent rubbing, the Turkish bath, and a piece of lemon. A two weeks' course of the latter will improve any complexion better than all the washes extant, and, more than that, will correspondingly improve the general health.—*Medical News.*

THE EFFECT OF ANTIPYRETICS ON DISEASE.—Dr. Alfred L. Loomis, in his president's address before the Medical Society of the State of New York, believes that every practitioner of medicine should put to himself this question: How much can be accomplished by the use of antipyretics in the arrest and safer conduct of disease, and are there no dangers attending their employment? Whatever answer may be given, he is convinced that the heroic use of antipyretic measures, which, within the past few years, has come into such general use—the one idea of time, unless the patient should be sadly in need of and ready to go to sleep.

Chloral imbecility may readily be induced by giving repeated small, ineffectual doses, and it requires large doses to prove effectual in great cerebral or sensori-motor nerve excitement, when the patient is sitting up or going about.

SURGERY.

TREATMENT OF MAMMARY ABSCESS. (Chas. P. Noble, M. D., Senior Assistant Physician to Philadelphia Lying-In Charity.)—From the therapeutic standpoint, mammary abscesses may be divided into those of recent formation and those of longer duration. The treatment of recent cases, those in which the abscess has not discharged, is similar, whether sub-dermal, parenchymatous or sub-mammary. The sub-dermal abscesses, usually connected with Montgomery's glands, are generally trivial, and would doubtless heal after incision without special precaution. It is more than questionable whether sub-mammary abscesses are not simply parenchymatous abscesses where the pus has burrowed posteriorly in seeking an outlet. So that practically we have the parenchymatous abscess to deal with. The indications are to evacuate the pus and promote the healing of the cavity. These are met by an incision sufficient for drainage, with the antiseptic dressing. The incisions and manipulations are so painful that ether is required. The service at the Charity has afforded but few cases of this class, and these, with but one exception, were outside cases. This woman was syphilitic and septic. In the maternity wards strict prophylaxis is maintained, with the above happy result. The operation is done as follows: After etherization, the breast and surrounding parts are scrubbed with soap and water, and then disinfected with sublimate solution (1–2000). A radial incision one-half inch long is made down to the abscess. If the amount of pus is small, and seems to be thoroughly evacuated, the cavity is irrigated with the sublimate solution and the dressing applied. Otherwise the finger is introduced, neighboring abscesses, if any, are opened, necrotic septa broken down, and the necrotic masses thoroughly removed by irrigation. Large cavities with communicating sinuses are packed with sublimate gauze; in moderate sized cavities the drainage tube is used. The dressing consists of sublimate guaze, absorbent cotton and the roller bandage. In the milder cases redressing is not practiced for several days, without special indications; in the others, after twenty-four or thirty-six hours. Then the packing is removed, irrigation practiced, the tube or a smaller amount of gauze inserted, and the dressings reapplied. The process is repeated when the discharges soak through the dressings. Healing has been rapid and without incident.

In the cases of longer duration the condition is usually one of mammary fistula, with recurrent abscess formation. The so-called pyogenic membrane is present. Several cases with extensive sloughing (one during pregnancy) have been under care. The same operative technique is observed. The incision, or incisions, are frequently extensive, the radial direction being observed as nearly as possible to avoid cutting across the milkducts. The neighboring abscesses are carefully opened; the partition walls broken down with the finger, or incised; the walls of the sinuses and abscesses scraped with the finger or curette; and the whole disinfected with sublimate solution, and the detritus removed with the irrigator. The operation is sometimes extensive, and the amount of blood lost considerable. In these cases sutures are introduced whenever primary union can be gotten or contraction favored. Equable pressure, secured by cotton and the bandage, greatly favors closure of these cavities. The drainage tube and gauze packing are used, and the after-treatment is similar to that described. In no case has there been a failure to obtain a cure, in some brilliant results were obtained, and in general the healing process was steady and progressive In some cases granulation was stimulated by the occasional use of silver nitrate. Sublimate irrigation favors granulation. Nursing from the affected breast is suspended, and the patient confined to bed until the healing process is far advanced. The essentials aimed at in this method are thorough opening and evacuation of all pus sacs, thorough drainage, and thorough antisepsis, together with the enforcement of perfect rest. The method is based on that of Billroth, and is, indeed, but the application of general surgical and Listerian principles.—*Med. and Surg. Reporter.*

GASOLINE FOR EPITHELIOMA.—An old woman had for twelve years a tumor on the bridge of the nose, close to the corner of the eye. This tumor had always been regarded as an epithelial cancer and was so pronounced by all the physicians who had examined it. I have observed the growth for many years and always considered it malignant. Its history was that of epithelioma. It began as a small pimple or speck and very slowly grew in size and spread in area. At times it was very red and itched intensely. Its surface ulcerated and secreted pus. When I last saw the tumor, about three years since, it was in circumference about the size of a nickel and considerably elevated above the surface of the surrounding skin. Early in February she hailed me on the street to show me that her "pet" was gone. I was much surprised at finding not the slightest trace of the tumor left, nor even a scar in the skin! She told me that she had used nothing but gasoline on it, applied, according to her statement, as follows: She took a little wad of cotton, wet it with gasoline and placed it upon the tumor and allowed it to remain for a few minutes and then threw it off, repeating the operation from day to day until the whole growth was gone. The suppurating surfaces dried up and the tumor simply shrank away. Gasoline is not a caustic, nor even an irritant to amount to anything. There can be no doubt but that the tumor, whatever it was, was literally cured by she application of gasoline.—*Williams, in St. Louis Med. and Surg. Jour.*

BUNIONS.—Dr. Robert T. Morris read a paper before the Medical Society of the County of New York on the subject of bunions on the great toe, considering their causation by ill-fitting shoes, the spasmodic action excited in the tendons by cramping the foot, and the treatment. Inflammation was to be subdued by ordinary measures, such as elevation of the foot, and cold or hot applications; on the corn a solution composed of salicylic acid in flexible collodium should be applied; afterwards it should be soaked in water and removed. The "anatomical shoemaker" commonly fitted a shoe to the deformed foot, and thus did what the mechanician would do if asked to apply an apparatus to promote the development of bunions. In health the great toe pointed inward, and the sole of the shoe should be made to correspond; it should be broad and sufficiently long, allowing full room for the expansion of the foot. the great toe should be made to point inward by retention in a compartment formed by sewing a strip of leather into the welt of the shoe. The stocking should be made also with a separate compartment for the great toe. The compartment shoe required to be low. A piece of court plaster worn over the bunion would tend to prevent the development of a corn. In some cases the ligament had to be divided; in some the bursa and a portion of bone had to be excised. This operation could be rendered painless by Corning's method of using cocaine; it should be carried out antiseptically. Afterwards a splint, retaining the toes in their normal position, should be applied, and subsequently the shoe with the separate compartment should be worn. The tendinous attachments should pe preserved.—*New York Medical Journal, March 10th.*

HOW TO TREAT CRAMPS IN THE LEG.—Many persons, of both sexes, are greatly troubled with cramps in one or both their legs. It comes on suddenly, and is very severe. Most people jump out of bed (it nearly always comes on either just after going to bed, or while undressing) and ask some one to rub the leg. I have known it to last for hours, till, in despair, they would send for the family physician; and even then, it would be hours before the spasms would let up.

There is nothing easier than to make the spasm let go its hold, and it can be accomplished without sending for a doctor, who may be tired and in need of a good night's rest. When I have a patient who is subject to cramp, I always advise him to provide himself with a good strong cord. A long garter will do if nothing else is handy. When the cramp comes on, take the cord, wind it around the leg over the place that is cramped, and take an end in each hand and give it a sharp pull—one that will hurt a little. Instantly the cramp will let up, and the sufferer can go to bed assured it will not come on again that night. For the permanent cure, give about six or eight cells of galvanic battery, with the negative pole applied over the spot that cramps, and the positive pole over the thigh. Give it for ten minutes, and repeat every weak for a month.

I have saved myself many a good night's rest, simply by posting my patients, subject to spasm of the legs, how to use the cord as above. I have never known it to fail, and I have tried it after they had worked half the night, and the patient was in the most intense agony. Even in such cases, at the first jerk of the cord, all pain left.—*R. W. St. Clair, M. D., in Med. Age.*

TREATMENT OF CORNS.—Dr. Lewis A. Sayre says that the first thing to do is to wear well-fitting shoes. With shoes sufficiently large to allow expansion of the foot in walking, you will have no corns; but if any exist, it is necessary to remove them.

Begin by paring the corn, shaving off the epidermis with a sharp instrument, but without provoking bleeding. Afterwards cauterize the surface with a crayon of nitrate of silver. In this way you cause the elimination of the kernel, which you could not do with a bistoury without bleeding. Now smear the corn with diachylon; wrap a narrow bandage around, of sufficient thickness to prevent pressure.

If it be a soft corn, the best treatment is cauterization with nitric acid or nitrate of silver. After having removed, with a penknife or scissors, the superficial hard part of the corn, dry the surface and apply caustic. The first cauterizations are generally painful, but the results are excellent.

After the cauterization is finished, insert between the toes tampons of cotton in a way so as to permit the circulation of air; at the expiration of several days, remove with forceps the eschar made by the caustic, and repeat the cauterization. The second cauterization is ordinarily painless, and seldom has to be repeated.—*Buffalo Med. and Surg. Jour.*—*Quar. Comp.*

GLYCEROLE FOR PIGMENTARY SPOTS ON THE SKIN.—Dr. Unna prescribes the following:

Oxide of bismuth,	
Rice starch	aa 2 grs.
Kaolin	4 grs.
Simple glycerole	10 grs.
Distilled rose-water, q. s.	

Put this mixture, by means of the forceps, on the pigmentary spots and let it dry. Bathe carefully before making the application.—*Le Clinique.*

A country practitioner, who has long suffered from rosaceous nose, writes to recommend scarification, at first twice a week, and then once, and latterly once a fortnight. His nose was freely scarified and with the most marvelous effect, the heat, pain and unnatural shape at once subsiding, and the redness abating, until, at the end of three months the nose is restored to its natural shape and color.—*Brit. Med. Jour.*

EDITORIAL DEPARTMENT.

J. F. BALDWIN, M. D., Columbus, - - - - EDITOR.

Communications, reports, etc., are solicited from all quarters.

Authors desiring reprints, will receive fifty, free of charge, *provided* the request for the same accompanies the article.

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AMERICAN MEDICAL ASSOCIATION.

Cincinnati, we understand, is ready, and willing and anxious, to do herself proud in entertaining all the doctors in the country during the second week in May. All will be welcome, and doubly so if they come double. Let all in Ohio, who can do so, attend this meeting of the A. M. A.

LIST OF OFFICERS AND PROGRAMME OF THE THIRTY-NINTH ANNUAL MEETING, TO BE HELD IN CINCINNATI, MAY 8, 9, 10, AND 11.

President.—A. Y. P. Garnett, Washington, D. C.

The general meetings will be held in the Cincinnati Music Hall.

First Day, May 8, 11 A. M.—Annual Address by President.

Second Day, May 9, 10 A. M.—Address on General Medicine, by Roberts Bartholow, M. D., of Philadelphia.

Announcement of Nominating Committee.

Third Day, May 10, 10 A. M.—Address on General Surgery, by E. M. Moore, M. D., of Rochester.

Fourth Day, May 11, 10 A. M.—Address on State Medicine, by H. P. Walcott, M. D., of Boston.

PROGRAMME OF SECTIONS.

Section of Practical Medicine, Materia Medica and Physiology.

First Day, May 8.—

1. TOPIC—Pneumonia, Etiology, Pathology and Treatment.

a. "The Mechanism of Pneumonia and its Treatment," by C. W. VanBibber, Baltimore.

b. Henry Hartshorne, Philadelphia.

c. James L. Whittaker, Cincinnati.

d. N. S. Davis, Chicago.

2. Treatment of Empyema," by Wm. C. Dabney, University of Virginia.

3. "On the Hippocratic Operation for Empyema, with Illustrative Cases," by Frank Woodbury, Philadelphia.

Second Day, May 9.—

1. TOPIC—Diagnosis and Treatment of Diseases of the Stomach.

a. "Some Practical Remarks on Diagnosis of Diseases of the Stomach," by Wm. Pepper, Philadelphia.

b. F. C. Shattuck, Boston.

c. J. Adams Allen, Chicago.

2. "Observations upon Nutrition," (with Especial Reference to Origin of Fat, Urea and Animal Heat), by Henry C. Chapman, Philadelphia.

3. "Septic Dysentery," by Bedford Brown, Alexandria, Va.

4. "Food in Nervous Affections," by Ephraim Cutter, New York.

Third Day; May 10.—

1. "Albuminuria and its Relations to Life Insurance," by James Tyson, Philadelphia.

2. C. W. Purdy, Chicago.

3. "Evolution of the Cystic Kidney," by I. N. Danforth, Chicago.

4. *a.* "The differential Diagnosis between Central Nervous and Peripheral Nervous Affections." *b.* "The Iodoform Cap in Tubercular Meningitis," by E. C. Spitzka, New York.

5. "Cerebro-Spinal Meningitis," by J. McFadden Gaston, Atlanta, Ga.

Fourth Day, May 11.—

1. "Relation of the Solar Plexus to Certain Obscure Forms of Disease," by J. Adams Allen, Chicago.

2. "Sympathetic Nervous System in Disease," by John North, Keokuk, Iowa.

3. "Abortive Treatment of Typhoid Fever," by L. D. Woodbridge, Williamstown, Mass.

4. "Clinical Experience with so-called Typho-Malarial Fever," by J. B. Marvin, Louisville, Ky.

5. "A Second Paper on Naphthol," by. J. V. Shoemaker, Philadelphia.

Section on Obstetrics and Diseases of Women.—"How Gynecology is Taught," by Ely Van de Warker, Syracuse, N. Y.

"Separation of the Symphysis Pubis in Labor, and its Treatment," by R. B. Bontecou, Troy, N. Y.

"A Plea for Early Operative Interference in cases of Obscure Pelvic Pain, and Recurrent Attacks of Pelvic Inflammation in Women," by Rufus B. Hall, Cincinnati, O.

"Exploratory Laparotomy," by Henry O. Marcy, Boston, Mass.

"The Management of Extra-Uterine Pregnancy," by A. M. Johnson, Danville, Ky.

"Observations on the Technique of Vaginal Hysterectomy, with Report of Cases," by Chas. A. L. Reed, Cincinnati, O.

Section on Surgery and Anatomy.—Address by the Chairman, "Some Thoughts on Retrospective and Prospective Surgery," Donald McLean, Detroit, Mich.

"The Appendix Vermiformis; its Functions, Pathological Changes, and Treatment," by Henry Hollingsworth Smith, Philadelphia, and

J. Ransohoff, Cincinnati, O.; J. McF. Gaston, Atlanta, Ga.

Discussion by T. G. Morton, Philadelphia; H. C. Chapman, Philadelphia; Elisha H. Gregory, St. Louis, Mo.; Reed Rockway Bontecou, Troy, N. Y.

"Intestinal Obstruction in its Surgical Aspects," Charles Bingham Penrose, Philadelphia, and

R. Harvey Reed, Mansfield, O.

"Rectal Insufflation with Hydrogen Gas as an Infallible Diagnostic Measure in ascertaining the existence of Visceral Injury of the Gastro-Intestinal Canal in Penetrating Wounds of the Abdomen. Illustrated by Three Experiments," by N. Senn, Milwaukee, Wis.

"The Surgical Advantages of the Buried Animal Suture and its Adaptability to Special Purposes," by Henry O. Marcy, Boston.

"A New Method of Excision of the Intestine," by Henry H. Mudd, St. Louis.

Discussion by Hunter McGuire, Richmond, Va.; P. S. Connor, Cincinnati, O.; S. H. Weeks, Portland, Me.

"Electrolysis as a Prime Agent in the Removal of Nasal and Pharyngeal Neoplasms," by D. S. Campbell, Detroit, Mich.

"An Antiseptic Surgical Cabinet," by H. Landis Getz, Marshalltown, Iowa.

Section on State Medicine.—"The Causation of the Essential Fevers," by Victor C. Vaughan, Ann Arbor, Mich.

"The Internal Origin of Fevers," by J. A. Larrabee, Louisville, Ky.

"Atmospheric Temperature and Intermittent Fever, by Henry B. Baker, Lansing, Mich.

"Report of Committee on Form of Law for Regulation of Practice of Medicine," by Perry H. Millard, Chairman.

"Recent Discoveries and Researches with Regard to a Common Cause of certain Infectious Diseases," by C. W. Chancellor, Baltimore, Md.

"Should the National Government Defend our Ports against the invasion of the National Enemy, Contagious Disease?" by Benjamin Lee, Philadelphia, Pa.

"House Drainage," by Joseph F. Edwards, Philadelphia, Pa.

"Cremation of Garbage," by J. Berrien Lindsley, Nashville, Tenn.

"Eastern Carolina as a Residence for Tuberculous Patients," by J. M. Baker, Tarbora, N. C.

"Personal Prophylaxis against Malarial Disease," by Geo. H. Rohe, Baltimore, Md.

"Hygiene of Infancy and Childhood," by F. B. Greenley, West Point, Ky.

Section on Ophthalmology, Otology and Laryngology.—"Melanotic Disease of the Conjunctiva and Episcleral tissue, with Five Illustrations," by Robert Sattler, of Cincinnati.

"Ocular Troubles Influenced by Nasal Diseases," by L. H. Taylor, of Wilkesbarre, Pa.

"Binocular Astigmatism," by H. Culbertson, of Zanesville, Ohio.

"The ¼ Dioptric Cylinder Lens the most Useful of the List of Cylinders," by J. J. Chisolm, of Baltimore.

"The Treatment of Strabismus due to Paralysis or Extreme Over-Correction with Loss of Motion," by A. E. Prince, Jacksonville, Ill.

"The Size and Illumination of Test-type," by E. Jackson, Philadelphia.

"Some Practical Suggestions Regarding Certain Anomalies of the Ocular Muscles," by George T. Stevens, of New York.

"Gummata of the Ciliary region," by S. C. Ayres, of Cincinnati.

"On Nutrition, or the Constitutional Treatment of Diseases of the Ear," by Laurence Turnbull, of Philadelphia.

"Some Remarks on Diseases of the Labyrinth," by Francis Dowling, of Cincinnati.

"The Bougie in Catarrhal Inflammations of the Middle Ear," by W. Cheatham, of Louisville.

"Reflex Nasal Cough, with Report of Cases," by Max Thorner, of Cincinnati.

"Reflex Phenomena in Childhood caused by Rhinitis, by J. A. Stucky, of Lexington.

"Naso-Pharyngeal Fibromata," by E. F. Ingals, of Chicago.

"An Interesting Case of Fibroma of the Larynx," by Jos. Eichberg, of Cincinnati.

"Tubercular Laryngitis," by W. E. Welsh, of Grand Rapids, Mich.

"Illustrative Points in the Examination of the Nose and Throat," by Karl von Klein, of Dayton, O.

"Tobacco Amblyopia," by A. R. Baker, of Cleveland, O.

"The Advantages of Leaving One Eye Open during the After-Treatment of Cataract Cases," by J. J. Chisolm, of Baltimore.

"Staphyloma of the Region of the Macula," by E. Jackson, of Philadelphia.

"A Plea for the Better Recognition of the Oculist in the Service of the U. S. Pension Department," by J. W. Wright, of Columbus.

Section on Diseases of Children.—"Infant Feeding. 1. Foods for Prematurely Born Children; 2. Mixed Diet; 3. Artificial Foods; 4. Feeding in Acute Disease," by C. W. Earle, Chicago.

Discussion by Wm. H. Parrish, Philadelphia; M. P. Hatfield, Chicago; J. Lewis Smith, New York; Wm. Perry Watson, Jersey City; J. T. Whittaker, Cincinnati; J. H. Ripley, New York; I. N. Love, St. Louis; G. Wheeler Jones, Danville; J. A. Larrabee, Louisville.

"Treatment of Pseudo-Membranous Laryngitis."

Discussion by J. Lewis Smith, New York; Fordyce Barker, New York; C. W. Earle, Chicago; Wm. Pepper, Philadelphia.

"Tracheotomy in Pseudo-Membranous Laryngitis."

Discussion by C. J. Jennings, Detroit; Chas. T. Parkes, Chicago; I. H. Hance, New York; J. M. Keating, Philadelphia; W. E. Casselberry, Chicago; J. H. Ripley, New York.

"Report on Intubation in Pseudo-Membranous Laryngitis," by J. O'Dwyer, New York, or F. E. Waxham, Chicago.

Discussion by E. F. Ingalls, Chicago; M. J. Stern, Philadelphia; L. H. Dunning, South Bend; C. E. Denhardt, New York.

"The Surgical Treatment of Empyema," by D. A. K. Steele, Chicago.

"Hepatic Incompetence in Children," by M. P. Hatfield, Chicago.

"Chorea;" by Geo. Wheeler Jones, Danville, Ill.

"Antifebrin as an Antipyretic in the Treatment of Febrile Diseases of Children, with a Report of Fifty Cases," by F. J. Parkhurst, Danvers, Ill.

"Some Points Concerning the Etiology and Treatment of Fevers of Childhood," by J. A. Larrabee, Louisville, Ky.

Section on Dental and Oral Surgery.—"Fracture of the Superior Maxilla and Upper Bones of the Face; Treatment by the Aid of the Inter-Dental Splint, with two Illustrations," by John Marshall, Chicago.

"Etiology of Irregularities of the Teeth;" "Development of the Superior Maxilla in the Idiot, Deaf and Dumb, and Blind and Insane," by Eugene S. Talbot, Chicago.

"Treatment of Irregularities of the Teeth," by Geo. W. Keely, Oxford, Ohio.

"Dentogeny," by W. C. Brittan, Detroit, Mich.

"Heredity in its Relation to the Teeth," by A. O. Rawls, Lexington, Ky.

Section on Medical Jurisprudence.—"Paralytic States, their Relation to Testamentary Capacity," by E. C. Spitzka, New York.

"Medical Jurisprudence in Relation to Wills," by Richard Gundry, Baltimore.

"Expert Testimony in Medical Jurisprudence," by Orpheus Everts, College Hill, Ohio.

"Feticide, its Increase and Inadequacy of Law for its Prevention and Punishment," by H. C. Markham, Independence, Ia.

"Some Phases of the Civil Law in Relation to the Development of Man," by J. W. C. Cuddy, Baltimore.

"Some Points in the Medical Jurisprudence of Insanity," by E. N. Crush, Philadelphia.

"The Medica-legal Relation of the Inebriate to Society," by I. N. Quimby, Jersey City, N. J.

"The Influence of Experimental Science upon Law," by Clark Gapen, Chicago.

"The Relation of Meconeuropathia, Opium, Toxemia and the Opium Psycho-Neurosis to Law," by C. H. Hughes, St. Louis.

"The Medico-legal Relations of Hysteria," by D. R. Brower, Chicago.

"Alcoholic Trance; its Medico-legal Relations," by T. D. Crothers, Hartford, Conn.

Section of Dermatology and Syphilography.—"The Use of Arsenic in Dermatology," by B. M. Ricketts, Cincinnati, Ohio.

Those desirous of reading papers in any of the Sections should at once send the title of their paper to W. W. Dawson, M. D., Cincinnati, and to the Chairman of the Section in which they wish to read it.

Railroad Arrangements.—The Committee on Railroads have secured a reduction on the certificate plan from all railroads entering the city of Cincinnati. The rate will be full fare coming to the meeting of the American Medical Association and one-third fare returning. Physicians will please *ask for a blank certificate at the railroad office at the time they purchase* their tickets, which certificate will entitle the holder thereof to a one-third rate returning. Drs. Geo. Purviance and William Judkins are the local sub-committee in charge of railroad and hotel accommodations.

Hotels of Cincinnati.—

Gibson House, Walnut St. between Fourth and Fifth; $3 to $5 per day.

Burnet House, Vine and Third Sts.; $3 to $5 per day.

Grand Hotel, Fourth St. and Central Ave.; $3 to $5 per day.

The St. Nicholas, Fourth and Race Sts.; rooms $1.50 to $4 per day. European plan.

Palace Hotel, Sixth and Vine Sts.; $2 and $2.50 per day.

Hotel Emery, Vine St. between Fourth and Fifth; rooms $1 to $2.50 per day. European plan.

St. James Hotel, Fourth St. near Main; $2 to $2.50 per day.

Dennison House, Main and Fifth Sts.; $2 and $2.50 per day.

Walnut Street House, Walnut between Sixth and Seventh Sts.; $2 and $2.50 per day.

Saint Clair Hotel, Sixth and Mound Sts.; $3.50 to $5.00 per day.

Hunt Hotel, Vine between Fourth and Fifth Sts.; $1.75 per day.

Crawford House, Sixth and Walnut Sts.; $1.50 to $2 per day.

Geneva Hotel, Sixth and Race Sts.; $1.25 to $1.50 per day; rooms, European plan, 50 cts. to $1.00 per day.

Galt House, Sixth and Union Sts.; $1.50 per day.

SANDER & SONS' EUCALYPTI EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Greifswald.

REVIEWS AND BOOK NOTICES.

Atlas of Venereal and Skin Diseases. By Prince A. Morrow, A.M., M.D., Clinical Professor of Venereal Diseases, formerly Clinical Lecturer on Dermatology, in the University of the City of New York; Surgeon to Charity Hospital, etc. New York: William Wood & Co. 1888.

The publishers announce that they have had this large and important work in contemplation since 1883, and it is now being published. From wide observation and acquaintance with similar works published in this country and abroad, they recognized the fact that it is impossible for any one author to furnish, from his own cases, the most typical and lifelike pictures of the many peculiar forms of these diseases. They therefore enlisted the co-operation, in the making of this Atlas, of the leading dermatologists and syphilographers of the world. Prominent among them are Profs. M. Kaposi and I. Neumann, of Vienna. The atlas of the former, of venereal diseases, just completed, and that of the latter, of skin diseases, now being issued in parts, will be largely drawn upon in the preparation of this work, the sole right to reproduce them having been granted the publishers by these authors.

Among other distinguished gentlemen who contribute selections from their selections of original illustrations are, Hutchinson, of London; Fournier, Hardy, Ricord, Cullerrier, Besnier, and Vidal, of Paris; Leloir, of Lille; Drs. E. L. Keyes, Henry G. Piffard and Fessenden N. Otis, of New York, Dr. J. Nevins Hyde, of Chicago, and others.

The author of the work, Dr. Prince A. Morrow, of New York, in addition to plates contributed from his own remarkable collection, writes the treatise on skin and venereal diseases, which constitutes, besides the description of the plates, the text accompanying them.

In this work the editor has sought to combine the pictorial representations of the diseases which commonly occur and are really important, with a practical exposition of their distinctive clinical features. With this object in view he has endeavored to select from various sources the most characteristic and typical examples of these diseases which have ever been delineated. Illustrations which are merely striking from their unusual and exaggerated development have been omitted. What may be styled the "common run" of cases—those ordinarily met with in practice—have been selected.

In writing the text the essential facts relating to symptoms, diagnosis and treatment have been kept prominently in view. Especial care has been taken to bring the therapeutical part of the work fully up to the latest advances made in this department.

In regard to the character of the plates, it may be said, they are believed to be superior to anything of the kind heretofore produced—as accurate in drawing as photographs, and far more distinct, while the coloring faithfully represents nature.

Particular attention is given to the common form of skin diseases, and included in it not only as a valuable independent feature, but also as a practical means of differential diagnosis, are the Eruptive Fevers, as Rubeola, Scarlantina, Erysipelas, Variola, Varicella-Vaccinia, etc., not found in any other work of the kind.

Altogether, considering the reputation of the authors of the plates, the ability of the editor, the artistic execution of the plates, the excellence of the presswork, the high quality of the paper, the large size of the page, etc., etc., this Atlas of Venereal and Skin Disease will be a most superb work.

It will be published in fifteen imperial folio parts, containing seventy-five superb colored plates, executed in chromo-lithographic style, printed in flesh tints and colers, containing several hundred figures, many life size, together with descriptive text for each plate, and from sixteen to twenty folio pages of a practical treatise upon venereal and skin diseases; the whole forming one thick imperial folio volume. It will be sold by subscription only, at $2 per part. The first four parts are now ready.

Physicians' and Students' Ready Reference Series: Obstetric Synopsis. By John S. Stewart, M. D., Demonstrator of Obstetrics in the Medico-Chirurgical College of Philadelphia. Illustrated. Philadelphia: F. A. Davis, Publisher. 1888.

This is a small work of about 200 pages, profusely adorned with classical illustrations. It is fully up to the usual standards of such publications. The author gives in an appendix the uniform Obstetric Nomenclature adopted at the recent meeting of the International Medical Congress.

A Practical Treatise on Diseases of the Skin. By John V. Shoemaker, A.M., M.D., Professor of Skin and Venereal Diseases in the Medico-Chirurgical College and Hospital of Philadelphia; Physician to the Philadelphia Hospital for Diseases of the Skin, etc. With colored plates and other illustrations. D. Appleton & Co., New York. 1888. Columbus: George H. Twiss. 8vo.; cloth; pp. 633; $5.00.

Although the author is probably best known in this country as one of those most active in promoting the discord which so nearly involved the late International Congress in total wreck, he has given us a good book in the line of his specialty—skin diseases. His descriptions are plain, his language simple, his illustrations mostly excellent, his colored plates execrable, his nomenclature beyond cavil, while his faith in pharmacy would make him a saint among the Christian scientists, if turned in that direction.

One peculiar feature of the book is the author's manifest desire to avoid technical terms; his experience has probably taught him the wisdom of this course.

Although we had understood that Dr. Shoemaker, in common with all other dermatologists, had pretty much entirely abandoned the use of the oleates, we find him still using them. It would be ungrateful to abandon such old friends, although their chief value to him had not consisted in their therapeutical effects.

The last sixty pages consist of a string of formulæ. We have here, for instance, twenty-two prescriptions for acne, but not a single word to suggest the indications for their use, and the tyro is left in doubt as to whether he is to give them all at once, or seriatim, or by lot. In truth, polypharmacy is the worst, as it is the most striking, feature of the book.

Nevertheless, the book will prove highly acceptable to many, especially to those who make no claim to a knowledge of dermatology, and will be appreciated by all.

Chemical Analysis of Healthy and Diseased Urine, Qualitative and Quantitative. By T. C. Van Nuys, Professor of Chemistry, Indiana University. With thirty-nine wood engravings. Philadelphia: P. Blakiston, Son & Co; Columbus: A. H. Smythe. Cloth; 8 vo.; pp. 187; $2.

This is a well written book, whose author is evidently a thorough chemist. A little more detail in describing the various tests would have improved the book very materially, so far, at least, as its use by the inexpert is concerned. The use of the spectroscope is given at some length, but this is an instrument not ordinarily found in the urine case of the physician. The book seems exceedingly well adapted to the use of chemists.

JUDGE GEORGE C. BARRETT, of the Supreme Court, New York, before whom the "boodle" Aldermen and Jacob Sharp were tried, has written an article on "Miscarriages of Justice," which will appear in the *Forum* for May. The same number will contain "Obstacles to Good City Government," by ex-Mayor Seth Low, of Brooklyn; "Appropriations for Public Works," by Senator S. M. Cullom; and a strong article by Michael Davitt, on "Irish Landlordism."

COLUMBUS

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COMMUNICATIONS.

REVIEW OF THE RECENT PROGRESS OF ELECTRICITY.

BY CHARLES H. MERZ, A.M., M.D., SANDUSKY, O.

The object in writing this paper is to give a concise outline of the present state of knowledge of electro-therapeutics and to serve as an article for reference on the subject.

The main facts concerning the application of electricity to the cure of disease have been collected from reliable sources and are arranged in alphabetical order without any unnecessary explanations.

Particular pains have been taken to state the strength of current in milli-amperes whenever possible, as accurate current measurement is absolutely necessary to the scientific use of electricity. Many writers speak of using twenty-five and thirty cell currents about the brain, which would be impossible if such battery were generating the current it should. But few patients can tolerate a current of more than two to five milli-amperes about the head. This fact alone would make it desirable that a definite current strength be established for each condition—thus making the dosage of electricity uniform.

The strength of a current may be roughly estimated without a milli-ampere meter by placing the needles in some white of egg. Robin states that a current of 45 milli-amperes causes coagulation of the albumen in twenty to thirty minutes. This is a practical test that can be made under any and all circumstances.

Acne.—An inflammatory, usually chronic, disease of the sebaceous glands, characterized by papules, tubercles or pustules, or a combination of these lesions, occurring for the most part about the face (Duhring).

Bartholow (Med. Elec. p. 228) has obtained good results from the use of galvanism in this and many other affections of the skin. He stimulates the entire surface of the face, paying little attention to the direction of the current. A current of 2 to 3 *milli-amperes* is found most suitable. After the immediate effects, which are irritating, have passed off, the skin becomes pale and the eruption less prominent. One electrode may be passed over the face while the other remains on the nape of the neck. Fox uses a small metal button applied to the red blotches which remain after evacuation of the contents of a nodule. In *acne rosacea*, when dilated blood vessels are present, treatment with the electrolytic needle has given good results (Duhring and Stelwagen, Am. Sys. Med. page 649). The positive electrode is held in the hand and a fine needle attached to the negative is applied to the small vessels. Two to six *milli-amperes* may be employed, being governed by the amount of pain and destruction caused.

Amaurosis, amblyopia, anemia of the optic disc, and other diseases arising from anesthesia of the retina, have yielded excellent results under the use of electricity. Anemia should be treated by galvanism and hyperemia by faradism. Applications should be made directly to the eyes—the anode resting on the closed lids and the cathode on the malar bone or temple (Bartholow). A current two milli-amperes will usually be found of sufficient strength. It may, however, be increased until faint flashes of light are seen, but should not be continued for more than two or three minutes. When faradism is employed the current should be rapidly interrupted and no stronger than is comfortable.

Amenorrhea.—May be either an interruption or habitual non-appearance of the menstrual discharge. May occur with plethora, from disturbance of ovarian or uterine function, or with anemia and debility. The greater number of cases are met with in anemic females.—(*Hartshorn's Prac. of Med.*) Galvanism, faradism and franklinism are employed. Electricity is especially valuable in young women, where the menstrual function is not fully established, on account of a torpid state of the vasomotor nerves of the ovaries and uterus, and also where the catamenia have been suppressed after labor, or in consequence of a sudden chill or emotion.—(*Golding Bird, Quarterly Epitome.*)

Anesthesia.— May arise from various causes — lesions of the brain and spinal cord, division of a nerve supplying a certain part, the results of exhausting diseases, etc. The sense of touch may remain, and the sense of pain be lost, or vice versa. When sensory functions are diminished we have anesthesia increased, hyperesthesia. In most cases removal of cause is the principal element in the cure. The faradic current is most suitable. Dry the skin, and dust with some drying powder, and apply the current by means of the wire brush or metal electrode for about ten minutes daily. The stable electrode, well moistened, should be applied at some indifferent point. A strong ascending galvanic current, 15 to 25 milli-amperes, may do good where there is languid circulation.

Angioma.— Dr. Alvarez speaks favorably of electricity in the treatment of angioma. The positive electrode is plunged into the tumor whilst the negative is moved about over the mass externally, or near to it as possible. He gives good results in a large number of cases. The current strength may vary between 10 and 40 milli-amperes, according to the sensations and effects produced.

Aneurism.— In the treatment by electrolysis coagulation is the end sought. For aneurisms of any size, both poles and a large number of needles that are insulated should be used. Strength of current, about 45 milli-amperes. Current should be allowed to flow for some minutes. —(*Beard.*) The advantage in using two needles is that a double clot is formed and the resistance is less. Cisnicelli records 37 cases of aortic aneurism with 6 cures. Petit gives 114 cases of thoracic aorta, with 96 benefitted, 38 deaths and 45 failures. Robert Abbe uses coils of wire, inserted in the aneurism after Barwell's method. The galvanic current is allowed to flow through the wire. The reason there are so few good results is that operative procedures are delayed until the sac is almost ready to burst. Coagulation is more certainly secured by this method than by catgut or horsehair alone. No suppuration or embolism ensues, and a firm clot is formed.

Asthma.—Probably a purely functional neurosis, as the organs present no characteristic anatomical changes. In cases of long standing, the evidences of chronic catarrh are due to the secondary affections. Owing to its neurotic origin, Eade (*Brit. Med. Jour.*) recommends galvanization of the neck. One pole is placed just below the angle of each jaw and in front of the sterno-cleido-mastoid. I have been unable to ascertain the exact strength of current employed, but he uses one strong enough to be felt, probably 20 milli-amperes would be sufficient. Bartholow (*Med. Elec.*) recommends systematic galvanism in the intervals between the seizures. Ranney recommends drawing of sparks from the anterior and posterior surfaces of the chest by means of the static machine (*Elec. in Medicine*). The induced electrical current has been used by Schaeffer as a means of cutting short the paroxysms. Place one pole at the angle of each jaw in front of the sterno-mastoid, so as to cover the course of the pneumogastric and sympathetic; the current strong enough to be felt passing through the neck. Apply 15 minutes twice a day for six days, twelve sittings usually affording relief. At first there may be dilatation of the pupils, but this is followed by contraction as improvement follows. (*Geddings, Am. Sys. Med. vol. iii.*)

Breast, tumors of—Under this head are classed such growths as are not carcinomatous, chronic mammary tumor (adenoma), cysts, fibromata, enchondromata, osteomata. Galvanism is the current most suited to the treatment of these tumors. It is essential to successful treatment that they be discovered early, while yet small. Surface applications are indicated. Large, soft, well moistened electrodes should be applied to both sides of the tumor and so placed as to permeate mainly in the direction of the axilla. A current ranging from 10 to 50 milli-amperes may be used at each *seance.* No exact rule can be laid down, as the resistance varies greatly. Of 186 tumors treated after this manner by Dr. Garret, of Boston, 157 disappeared entirely and permanently.

Bullets, detection of—Instruments necessary, telephone, suitable shaped metal probes, insulated nearly to the tips, and a small steel ball with necessary connecting cords. In the apparatus as perfected by Dr, J. H. Girdner, of Boston, no battery is used, the patient's body being made to furnish the current. The ear-phone is flat in shape and is held in apposition to the surgeon's ear by an elastic head band or metal frame, thus leaving both hands free for work. One pole of the magnet in the receiver is connected with a small steel ball which the patient holds in his mouth and the other end to the probe. The probe when passed into sinuses or bullet tracks gives no sound unless it comes in contact with some metallic substance when the current is completed and a decided "click" is heard in the instrument. The telephonic probe is destined to play an important part in the department of surgery, as it is sensitive, reliable, and at the same time compact and inexpensive. Any telephone constructed on the Bell principle (electro-magnet and metallic diaphragm) will serve to transmit the sounds to the ear. (*Vide* Ganot's Physics, p. 844.)

Cataract.—Recent advances in electro-therapeutics have led to the use of the current in this affection. The action of electricity is threefold—mechanical, tonic and catalytic; tonic from its action on the sympathetic and pneumogastric, catalytic from its electrolytic action. "In all cases in which the disease is progressive, as indicated by the fat granules and nebulæ, where electricity is well borne, where the choroid and retina are not greatly degenerated, and where there is no complication of cirrhosis of the kidneys or liver, diabetes or organic disease of heart or lungs, improvement may be expected." The negative electrode should be placed on the eye, and the positive on the nape of the neck, jaw or stomach. A current of two milli-amperes will be sufficient for most cases, though no rule can be laid down. This may cause vertigo. A current of this strength may be applied for five or six minutes daily. Faradic current, negative to the nape of the neck or in the hand of the patient, and positive to the eye, by means of a moist sponge or the fingers. Use a weak current for five or ten minutes daily.—(*Kidder.*)

Cord, Spinal.—Acute inflammatory conditions should not be treated with electricity. When the disease has assumed a chronic type, galvanism is of more service than the faradic or static currents, probably on account of the depth of tissue affected. The various complications of the disease, rectal and vesical irritations, incipient caries, paralysis, etc., may often be greatly relieved by galvanism. The current strength varies from five to eight milli-amperes, and the applications should be made daily. Occasionally a current of twelve milli-amperes will be found necessary in chronic cases. Points of tenderness should be sought and galvanized separately.

Fibroids.—From July '82 to July '87, Apostoli made 5,201 applications of the continuous galvanic current for the following affections: Fibroids of the uterus, polypi, entire or partial hypertrophy of the uterus, subinvolution, acute and chronic endometritis, ulceration of cervix, periuterine inflammation, ovaralgia, ovaritis, salpingitis, tubular cysts, atresia, and hematocele. The 5,201 applications were made on 403 patients. Of these he lost two, and had ten phlegmons, which he excited or aggravated.

Fistula, Anal.—Ciniselli reports a case in which all manner of cauterization had been employed. An elliptical ulcer was found on the right margin of the anus one and one-half inches square. He cauterized it superficially with a current of fifteen milli-amperes for fifteen minutes, with the result that in one week there was less pain and tenderness, and cicatrization had commenced. One week later cicatrization was complete and all pain gone. Numerous cases of a similar nature have been reported, establishing the value of electricity in this condition.

Galvanization—Central.—Dr. Beard recommends that the cathode be placed over the epigastrium. The anode is to be stroked over the forehead, with a current of about two milli-amperes, for two minutes; then to the cranium for two minutes; afterward moved up and down the neck for a like length of time, and finally applied up and down the spine for about ten minutes. This method gives excellent results in the various forms of nervous dyspepsia, gastralgia, hysteria, hypochondriasis, etc. When the current is transferred from the brain to the spine it may be increased somewhat—running up to five and eight milli-amperes.

Hematocele of tunica vaginalis—Apostoli recommends galvano-puncture as being quick and exerting a surgical and medical effect.

Hemorrhage—Post-partum.—It is possible by means of the faradic current to keep up contractions of the uterus for hours. One electrode may be applied at the symphisis pubis and the other moved about over the abdomen.

Hernia.—But few cases of the application of electricity to this condition are recorded. Dr. Craft, of Cleveland, reports a case in which a needle, properly insulated except at the point and attached to the positive pole, was introduced subcutaneously between the external and internal rings and a current sufficient to excite adhesive inflammation allowed to pass. Care must be taken to keep the needle external to the peritoneum and not to injure the cord. The operation resulted in a cicatricial sealing of the inguinal canal.

Hydrocele.—Excellent results have been obtained by electrolysis by Rodolfi, Erhardt, Frank, and Bartholow. Two insulated needles are introduced into the sac and brought within half an inch of each other, when the current is turned on. Signor Macario (*Gaz. Med. Ital. Lombard. No. 36*) reports two cases cured by the single application of a current one minute. In both cases the fluid disappeared entirely in 24 hours, though no fluid escaped from the needle puncture. A current of 20 to 30 milli-amperes may be used, being guided largely by the sensations experienced by the patient.

Hypertrichosis.—Place patient in a suitable position and light.

Have a suitable galvanic battery. Moistened sponge electrode attached to the positive pole and a platino-iridium needle or jeweler's brooch attached to the negative by means of a suitable handle. The needle is inserted as near as possible into the hair follicle and the circuit completed. After a sufficient length of time the circuit is opened and the needle withdrawn. The hair is permanently destroyed. Hays (*St. Louis Med. and Surg. Journal*) uses 5 to 10 zinc-carbon cells and a cambric needle, allowing the current to flow 15 to 20 seconds. Hardaway (*Phil. Med. Times*) used 8 cells and a No. 13 cambric needle. Fox (*N. Y. Med. Record*) prefers 10 to 16 cells of zinc-carbon battery and fine flexible steel needle. Amory (*Boston Med. and Surg. Journal*) thinks a fine gold needle the best and 20 seconds sufficient as to current strength. Lusgartin (*Wein. Mediz. Wochenschift.*) uses ½ to 1 milli-amperes from 20 to 30 seconds. Michelson (*Niertel Jahrschrift. fuer Dermatologie*) used 3 milli-amperes Baratoux required 5 to 8 milli-amperes, and Brocq needed from 10 to 25 milli-amperes. I have found, after a large number of experiments, that a jeweler's fine brooch is the most suitable needle, and that a current of 3 milli-amperes for 30 seconds is sufficient to destroy the coarsest hair, while one rarely needs a current greater than 2 milli-amperes if continued long enough.

Induction Balance.—Principle first applied by Babbage, Hershell and Dove. The instrument devised by Prof. Hughes (*Vide* Ganot's Physics, p. 848.) is the most complete, and offers to the physicist, or physician, a powerful instrument of search. The apparatus consists of two primary coils, each containing 200 meters of No. 32 silk-covered copper wire, and two secondary coils, all four being exactly alike. The two primary coils are joined in series with a battery of three or four Daniell's cells, in which a microphone is also inserted; the current being broken by the ticking of a small clock. The secondary coils are connected with a telephone in such a manner that their action upon it is opposed. In winding the coils it is found almost impossible to get an exact balance. Adjustment between the secondary and primary coil is made by a micrometer screw. When this is accomplished there is silence in the telephone, but if any metal is introduced in one of the secondary coils a sound is heard at once. This principle has been made use of in the detection of metallic substances buried in the body; but while the substance is always detected, it is not accurately located, and the results from the use of the instrument have not been of the most satisfactory nature.

Intestinal Obstruction.—In invagination, faradic currents have effected cures. Cases are reported by Bucquoy (*Jour. de Therapeutique*) and by Ballouhey (*These de Paris*) of cures by the galvanic or faradic currents. In the use of the galvanic current peristalsis is probably started from the point of application, while faradism probably acts by forcibly contracting that part of the canal reached by the current, and the consequent traction exerted upon the invaginated portion (*Bartholow*). One pole should be placed in the rectum and the other passed over the abdomen. Direction of the current is unimportant.

Lactation.—The faradic current has given good results in undeveloped glands after parturition. In one case reported by Aubert (*London Med. Record*) two applications gave a free supply. The static spark is recommended as being more reliable, but faradism will do well. Both breasts should be included, and the treatment should be instituted promptly to be successful. Becquerel relates a case of a young woman who, after eight days suppression, was able to nurse her baby, and in whom the quality of milk was improved. Pierron relates a large number of cases in his practice in which electricity either re-established the function after suppression, or induced it when absent after normal labor. In my own practice I have found galvanism, a current strength of four to six milliamperes, and faradism alternately to be a very satisfactory method of treatment. The anesthesia usually present rapidly decreases.

Larynx, Papilloma of—May be successfully removed by means of the galvano-cautery. It is well to produce local anesthesia by means of a strong solution of cocaine. The cautery point should be at a white heat, and placed *in situ* before the current is turned on. The amount of battery power required for any particular electrode may be ascertained beforehand. Leave electrode in contact with the growth for a few seconds only. In a few days the growth will drop off if properly cauterized.

Liver, hydatid cysts of.—Capillary electrolysis is recommended as one of the few methods of treatment. In this method, the needle is replaced by a canula which remains free. There is no pain. By the partial coagulation of the fluid, a more efficient chemical action takes place. During the passage of the current, it permits of the escape of the gaseous froth. It destroys the hydatids and changes the living into an indifferent substance which solidifies and retracts. Finally it obtains the cure of the cyst without subjecting the patient to a serious operation. (M. H. Heurot, *Jour. de Med. de Paris*, Oct. 11, '82.)

Lupus vulgaris.—The ulcer and surrounding integument should be washed carefully with soap and water. The application may be made by means of a flat silver plate, set in a rubber ring to prevent action on the healthy tissues. This is attached to the negative pole. A current of from 5 to 10 milli-amperes is employed for ten or fifteen minutes. In this manner the electrolytic action is confined to the diseased parts. Under the influence of the current, the lupus nodules become excoriated and swollen and give vent to a clear watery sticky fluid. After a few hours they sink out of sight. They may be dressed in iodoform for eight or ten days. The result is a pigmented cicatrix. This method of treatment is applicable to the ulcerating and non-ulcerating forms. (*Vide Weiner Med. Wochenschrift*, Nos. 27, 28.)

Metritis and Endometritis.— Metritis, hyperplasia of the connective tissue of the uterus combined with increased sensibility. In a paper by Apostoli (*Jour. Am. Med. Assoc.* Vol. 8, No. 19) the application of electricity in these conditions is fully treated. A medical galvanometer for intensity divided into milli-amperes, should be included in the circuit. Of permanent batteries, the Leclanche cell is recommended. The intra-uterine electrode should be large enough to reach all parts of the uterine cavity and have a glass muff to protect the vagina. The electrode should be of platinum. A neutral or insensible electrode, which is applied to the abdomen, allows of the use of the intense current without pain or heat. The cords should be of good conducting material. Precede the applications with a vaginal antiseptic injection. "Singe and disinfect" the electrode and introduce it carefully with the current turned on. Cauterize the cavity thoroughly in all hemorrhagic cases, less thoroughly in others. After two or three applications the intensity must be increased, reaching 100 to 200 milli-amperes. Apply for five or ten minutes. These applications should be made every week, and every second day if necessary, and should be followed by a rest of several hours in bed. This treatment, it is claimed, induces a new form of intra-uterine mucous membrane and forms an intra-uterine exudation.

Myoma.— Martin, in a paper read before the Ninth International Congress, speaks of the treatment of myoma by electricity. Local effects of the poles should be borne in mind, *i.e.* that acids collect at the positive and alkalies at the negative. A current possessing intensity rather than volume is desired. The current exercises an atrophic effect — not electrolytic action alone, that produces the desired end. The elements being separated an electrolytic action takes place and absorption follows. Caustic effects are not desired and there is no galvano-puncture as in Apostoli's treatment. A current of more than 100 milli-amperes is never used. This method of treatment is claimed to be devoid of danger, painless, checks hemorrhage, reduces the size of the tumor and admits of accurate dosage. (*Med. News*, Vol. 51, No. 2.)

(*To be continued.*)

PROFESSIONAL VISITS.—The number of professional visits which a physician can make in a day has of late been the subject of some discussion. A New England doctor is credited with having made thirty-five calls in twenty-four hours, besides attending three confinements. The West produces something far ahead of this in the person of a Sacramento doctor who claims to have made one hundred visits a day, besides attending four confinements! The *Medical Age* promises something from Detroit that will even surpass the hyperkinesis of Sacramento, and we await the anecdote with eagerness. It appears to us that the conscientious physician can hardly make more than twenty or thirty calls a day, and do his patients justice. Naturally much depends upon the distance which one is obliged to travel. But allowing fifteen minutes for traveling, and fifteen more for the briefest average of visits, it will be seen that a doctor must work fifteen hours a day to make even thirty visits. And fifteen hours' work in these days turns even conservative knights of labor into raving anarchists.

It has been related that certain physicians in this city have habitually made forty to sixty visits daily; but inquiry has shown that the story is false, or the physicians have been homeopaths.

We trust that there will be no ambition to break the record in number of daily visits. It is quality, not quantity, that is needed.—*Med. Rec.*

DR. WILLIAMS, of St. Louis (*Med. and Surg. Jour.*), reports a case of epithelioma cured by repeated daily application, of gasoline. The patient took a little wad of cotton, wet it with gasoline and placed it upon the tumor, and allowed it to remain for a few minutes and then threw it off, repeating the operation from day to day, until the whole growth was gone. The doctor is satisfied there was no mistake in the diagnosis.

ELY'S CREAM BALM consists of vaseline, 1 ounce; thymol, 3 grains; carb. bismuth, 15 grains; oil wintergreen, 2 minims. The directions are to dip the little finger into the balm and insert up the nostrils, giving two or three full inhalations.—*Med. Record.*

A PLEA FOR THE BETTER RECOGNITION OF THE OCULIST IN THE SERVICE OF THE U. S. PENSION DEPARTMENT.

BY J. W. WRIGHT, M. D., COLUMBUS, OHIO.

[A paper read before the Ophthalmological Section of the Amer. Med. Association.]

The United States Pension Department has been established for the purpose of remunerating those who have become disabled while in the service of their country by reason of injury, sickness, or deprivation. While the Government is endeavoring to provide for these persons, it becomes necessary to guard against impostors, for the recompense is amply adequate to induce those who are so disposed to make the effort to obtain it. For this reason Boards of Examining Surgeons and Special Agencies have been established throughout the country, as well to enable the deserving to procure what is justly due them as to prevent others from obtaining that which does not belong to them.

At present the applications for this beneficence are in great profusion, for the reason, perhaps, that many of the older ones who served in the late civil war mistake their physical impairments from age for disabilities from wounds and exposure from army life; while others, who received injuries while in service, or suffered from the sicknesses and privations consequent to a camp life, although not considered at the onset sufficiently disabled for a pension, have developed, with increasing years, diseases and infirmities which have rendered them confirmed invalids.

It is doubtless the design of the Government authorities that the machinery of the Pension Bureau shall be as complete as possible, for the nearer it approaches perfection the more will the chances for fraud be diminished; hence every application receives the most careful and deliberate consideration at the hands of this department.

The Medical Referee, in his instructions to examining surgeons, states that (Art. 5) "the object of a medical examination is to obtain a full and complete description of the disabilities for which pensions are claimed, and to gain a *clear and distinct idea of the extent to which they are disabled in the performance of manual labor.* (Art. 6.) To this end it is necessary that *every disability existing* shall be fully described, etc.

Under the head of "*Diseases of the Eye,*" (Art. 58) we find: "In all diseases of the eyes involving internal structures the ophthalmoscope must be brought into use, otherwise the examination is of little value."

In closing the instructions the medical examiners are reminded "that the interests involved in pensions are of such magnitude as to demand the employment of the very best professional skill this country can supply." The term "a full and complete description of the disabilities," is sufficiently significant to indicate the desire of the head of the medical department.

That "the ophthalmoscope must be brought into use, otherwise the examination is of little importance," is pertinent; but could the department have fully comprehended the necessary knowledge of optical principles, and the constant and unremitting practice which underlie a correct application of this instrument, in order to be able to detect the various pathological conditions in eye affections, I do not believe this last clause of instructions would have been imposed on medical gentlemen, of whom not one in every hundred can realize the practical value of this instrument.

This may seem to many an exaggeration, yet I believe every oculist here will bear me out in this assertion.

Nor is this intended to reflect upon the abilities of examining surgeons — for there is not an instrument of diagnosis of such incalculable value, in my estimation, so difficult of application as the ophthalmoscope.

In making this entreaty, a few cases which have come under my immediate observation may be in place:

A gentleman living in the eastern part of Ohio, who served his country during the war, made an application for a pension, because of a disease of the eyes which rendered him almost blind and incapable of earning a livelihood. He was ordered before a board of examiners, and in due time he received a pension and considerable back pay. Some time afterward he was induced by his friends to consult me in reference to his eyes. I found that he had entropium, which had followed what he termed the "army sore eyes." There was no complication or structural disorganization of the parts, the inflammation being simply mechanical, the result of the hairs which were constantly rubbing against the balls. I informed him what could probably be done, and seeing an opportunity of giving him great relief, I encouraged him with the possibility of considerable improvement in his vision. I saw that he was not favorably impressed with my opinion, and I naturally presumed that he did not have the confidence in my ability to accomplish that which I had given him encouragement could likely be done. I afterward learned that he had *too much* confidence in my ability to help him. He feared that the operation would prove so successful that he would be compelled to relinquish his pension.

Afterward, upon making inquiry, I was astonished to learn that he had obtained his pension because of "*glaucoma.*"

Mr. B. had served considerable time in the army. Four years ago I operated upon one of his eyes for cataract, he being blind in both eyes. The operation proved very successful, and the patient returned to his former occupation—that of a contractor—which he had been compelled to relinquish almost a year before the operation, and which he now manages with very little inconvenience/ Not long since he got into the hands of a pension solicitor, and was easily made to believe that his blindness had been the result of sickness and exposure while he was in the service. He did remember of having had the jaundice while in camp, and how "yellow" his "eyes looked." "This surely was the key to the origin of his blindness." An application for a pension was at once made, and in due course of time he was ordered to appear before the Board of Examining Surgeons. One of the examiners, who makes some pretensions to a knowledge of eye diseases and the use of the ophthalmoscope, was delegated to examine all such applicants, and accordingly examined this gentleman's eyes. An elaborate examination was at once commenced, and the ophthalmoscope was brought into vigorous use. An hour at least was consumed in the examination. Of course the opacity was seen in the eye which had not been operated upon, or I presume it was seen, as the ophthalmoscope was made to play upon it at least one-half the time; and in the other eye the cicatrice where the incision had been made in the upper part of the cornea, and the irregular shaped pupil, were plainly discernible, and excited the interest of the surgeon. The surgeon inquired what had happened to the eye. Evasively, he answered that "some doctor had been trying to operate upon it." The examining surgeon ventured the remark that it had been "*badly butchered,*" and advised him to not allow the other one to be "meddled with," or he would be left "*entirely blind.*"

The applicant has received, I understand, a comfortable pension with considerable back pay.

Of course it is impossible for us to say that the applicant's jaundice, together with his other sickness and exposure in the service, *did not* cause, or contribute in some way to the opaque condition of his lenses, although his mother and a sister, who were not exposed to these influences, were both blind from cataract.

Although the origin of a disability is considered a legal matter — that is, a thing to be determined by evidence obtained outside of the medical examination, yet the examining boards are largely entrusted with the duty of distinguishing and separating disabilities of origin, either before or after enlistment, from those which occurred during actual service. In the above case the opinion of any reputable oculist, doubtless, would have precluded a pension.

A gentleman from the southern part of Ohio came to my office a few years ago, and desired me to make an examination of his eyes, and give him a written opinion. He made the statement that while in the army he had had sunstroke, and with it the loss of one eye. He was discharged and sent home, not on account of the loss of the eye, but because of his general physical disability which followed the sunstroke. A few months after returning home, while engaged in some work requiring physical exertion, he suddenly lost his sight in the other eye. He was now practically blind, although not *entirely* so, for he could grope his way around to a better advantage than if he had been totally blind, but he was so blind that it was impossible for him to distinguish one object from another, or to be able to perform any labor that could not have been accomplished by a blind man.

He had made several attempts to procure a pension, and had been ordered before different examining boards, but for some unaccountable reason to him he had never been able to obtain it. Finally it came to his ears that it was intimated by some persons that he was a malingerer, and it was to contradict this report and to place himself in a proper standing among his friends, rather than to aid in procuring the pension, that he desired the examination and written statement concerning the condition of his eyes. The examination with the ophthalmoscope revealed the fact that there had undoubtedly been very extensive retinal hemorrhages, involving the macula in both eyes. The hemorrhagic spots had been unquestionably numerous, as there were many places marked by choroidal alteration, or replaced with blackish pigment. In other places the retinal tissue seemed to be degenerated, and marked by a whitish or grayish tinge. There was such complete destruction of the retinal tissue that it was impossible for him to more than know that an object was in front of him in good light. I gave him a certificate stating the facts, since which time I have heard nothing from him.

I do not recollect of ever having seen or heard of retinal hemorrhage caused from sunstroke; but, owing to the engorged condition of the sinuses and veins of the brain during the active stage of the affection, it is readily understood how it could occur. The second hemorrhagic attack can be explained because of the tendency of recurrences of cerebral engorgement after sunstroke, marked by sudden depressions under exposure to heat or bodily exercise.

It is fair to presume that the surgeons who had examined him took into consideration the external appearances of his eyes, and had overlooked their retinal condition.

As oculists are generally aurists, the following case, which refers to the hearing, is permissible.

A young man enlisted at the beginning of the war and was in actual service most all the time until its close. He was in many engagements where there was heavy cannonading. When he was discharged he was somewhat deaf, and grew gradually worse for ten years following, at which time it was almost impossible for him to understand the loudest talking. Since that time he has remained in this condition. About eight years ago I saw him when he was making an effort to obtain a pension. He came to me because I had known him before he entered the service and also because, he said, he had consulted me in reference to his deafness immediately after his return from the army. I have, however, no record or remembrance of his consulting me at the time mentioned, but from an incident which he referred to as having occurred at the time, I presume he did.

At any rate I was not able to testify, as he desired evidence to establish the time the deafness began and its continuance, in order to associate it with the exposure to the heavy cannonading during his service. Having no record of the examination I made eight years ago, I am not prepared to give the details, yet I am confident that I found no appreciable lesion, because of an opinion I formed of his case at the time, and which I have had in my mind ever since relative to the cause of his deafness. I came to the conclusion that there was an anchylosis of the joints of the bones of the ears. These bones, as we all know, are, or should be, freely movable at their joints, although delicately attached to each other. Their articulating surfaces are covered with cartilage and connected with capsular ligaments, and lined with synovial membrane, the same as the articulating surfaces of other bones, and are no doubt liable to the same diseases as the larger joints. These joints are adapted to allow of the motions of the bones conveyed to them through the membrana tympani from ordinary sounds, and they perform their functions perfectly well and without injury to themselves under these conditions. But heavy cannonading would cause, through this membrane, excessive action of these joints. Then why is not a synovitis just as likely to be induced here as it would be in the large joints, where it is so liable to end in an anchylosis? But it matters not whether the deafness is caused from an anchylosis of the bones of the ear, or, as some authors would have it, in case of boiler makers and others subject to like noises, is due to nervous exhaustion from continued shock; or, as explained by others, to chronic catarrh of the middle ear, it is quite sufficient for us to know that cannonading has been the cause of very much and intense deafness.

In this case it is impossible, perhaps, to establish an unbroken chain of evidence from the time of the inception of the injury until very marked deafness had ensued, from the very fact that slight deafness, or what is termed dullness of hearing, is not very noticeable except to one's most intimate friends or associates; when the patient is no longer able to distinguish ordinary sounds, then it is noticeable to all.

Evidence that this man was exposed to heavy cannonading during his service, and that the deafness now exists—in the absence of lesions that would indicate that the deafness was not the result of army exposure —would be sufficient grounds for allowing him a pension.

If, as expressed by the Medical Referee, "the interests involved in pensions are of such magnitude as to demand the employment of the very best skill the country can supply," then it is nothing but just that *all* applicants claiming defect in sight or hearing should be referred to boards of examiners composed solely of experts in this particular class of affections. The number of applicants claiming defect of vision alone would justify this. From July, 1886, to December, 1887, there were 4,672 pensions granted for disabilities of the eyes. As about 12 per cent. of all applicants during this time received pensions, then there was the enormous number of 39,000 applications in this class alone.

In concluding this argument, I disclaim any selfish motives, more than a desire that our profession may be the means of promoting the interests of many worthy applicants, and of increasing the efficiency of the Pension Department, by contributing the very best skill for the examination of this particular class of applicants.

THE INFLUENCE OF THE MIND OVER THE BODY.

BY T. H. STUART, M.D., BRADFORD, PA.

Seeing frequent notices—generally, however, in newspapers, of remarkable cases of "mind cures," conveying to the mind of the laity the nonsensical idea of curing serious organic diseases, as well as simple nervous derangements, reminds me of one dating back over forty years ago. I graduated in 1844, and the case I refer to was my very first one. I was at this time "fresh" from the "manufactory," and of course ready to grapple with death under any circumstances. Immediately after I "got through" I wended my way to Cabotville, Mass., to spend a few months with a medical friend, and one day while there a gentleman came into the office and says to the doctor: "I guess you'll have to go and see my wife again, as she has another of her 'bad spells.'" The doctor had told me about the case before, and says he: "Now come along, and you'll see something that will be a stunner to you." So we repaired to the place indicated and there I saw a lady who was to become my first patient. The husband had witnessed these "spells" so often that he had ceased to be alarmed, yet generally called in this medical friend of mine. The lady was dressed as usual when attending to her household duties, but now lay on the bed in a bent position, the muscles of her body and limbs being flexed so that her face was planted and firmly fixed on her knees. Not a muscle could be relaxed and her respiration was such that she really seemed like a dead person to me and perfectly unconscious of our presence. The doctor, thinking that little or nothing could be done for the patient just then, we left, requesting the husband to call at a specified time. It was evidently one of those troublesome hysterical cases that one meets with occasionally, and I told the doctor that this would be a good one to test the influence of the mind over the body, and to let me have the control, which he willingly assented to. Now when the husband called I told him that I could cure his wife if he would only aid me a little, which he said he would gladly do, for he had been kept poor in paying doctor bills. Then I led him into the secret of the plot, which was to give no medicine at all, but to operate through the medium of the nervous system, and to effect the object desired by a systematized course of exaggerated falsehoods, calculated to raise her expectations and stimulate the nervous system up to a high degree, by the representations of marvellous cures effected by the most celebrated doctor in the New England States. The unfortunate lady had never seen me, as she was in an unconscious condition when I called with my medical friend. Now, to save a tedious repetition, I will simply say that the husband played his part admirably, and succeeded in getting his wife perfectly wild to see this remarkable doctor, who, he said, was only in the city temporarily and it would be difficult to procure his services. But, woman style, see him she must, and at what was thought to be just the proper time, I called, and after listening to a rehearsal of about all the aches and pains known since the time of Job, I reluctantly consented to prescribe, with the assurance that all my directions would be carried out to the letter, as I was liable to be called home at any time and I would dislike to leave her only half cured—a cure being a foregone conclusion, of course, if only my powerful drops would be taken with great regularity and extreme caution. Now, suffice it to say, that she was ordered merely an exclusive animal diet, systematized out-door exercise, and five drops of water, administered with great caution and largely diluted, three times a day, and to the astonishment of the husband, but not to the wife, for she expected to be cured, the poor confiding lady never had another of her "bad spells" during the six months I remained as a visitor with my medical friend, who joined me and the delighted husband in many good laughs at the expense of his hysterical wife.

BEAUTIFUL CHEMICAL PREPARATION.—A snow white mass of Caffeine, the active principle of coffee, (200 pounds and of great value,) is now on exhibition in the window of William R. Warner & Co., 1228 Market street. This beautiful crystallization represents ten tons of coffee, and is used as an ingredient in the preparation of Bromo Soda, prescribed for the cure of headaches, migraine, nervousness, sea sickness, &c.—*Philadelphia Inquirer.*

SCOTCH OATS ESSENCE.—The *Boston Journal of Health*, for March, states that the so-called Scotch Oats Essence contains about 35 per cent. of alcohol, notwithstanding the statement of the makers and advertisers, who assert that it is a harmless vegetable tonic, designed to free the victim of the alcohol habit from his bondage.

Furthermore, the *Druggists' Circular*, for April, states that this same Oats Essence contains *morphine* in large quantities.

COUNTRY DOCTORS.

Editor Columbus Medical Journal:—

A paragraph in the President's Address before the American Medical Association at its recent session, calls for a passing notice. In accounting for "unfortunate educational deficiencies pervading many medical communities," he says: "It has been alleged that it proceeds from a lack of study on the part of the general practitioners, especially those residing in rural districts, who find more congenial occupation in discussing politics, hunting, and in farming, than in the study of medical works, and that the schools should not be held responsible for this condition of things."

A somewhat extensive and intimate acquaintance for thirty-six years with the doctors "residing in rural districts" in Central Ohio, enables me to say, that theirs is not a life of ennui and ease, but of toil, patience, perseverance and devotedness to their profession. A majority of them take and *read* two or more of the weekly medical journals, to say nothing of monthlies and quarterlies.

Their libraries are replenished from time to time with the most popular standard works, and in many instances gentlemen "residing in rural districts" have as good libraries as are found elsewhere.

Their very *isolation* tends to make them more careful students of current medical literature, and adds greatly to their *self-reliance*; so that they meet emergencies as promptly and as successfully as gentlemen whose offices happen to be in the most crowded thoroughfare or fashionable street.

Is it only the plodding country doctor who enjoys liberty and leisure? Is it in the city only that the mind links one proposition with another, joins experience with observation, and from the discovery of one truth proceeds in search of another? Are there no politics or allurements there to divert the mind and lead to negligence in the "study of medical works," or to destroy the power to think with steadiness and attention? Is it possible that the city affords the only incentives to cultivate philosophy, or to raise the soul and fortify the character, or peradventure to court the muse with effect? Do the tiresome rounds of amusements of fashionable society excite a disposition to think well, to direct the attention to proper subjects of thought, to strengthen observations, and to increase the natural sagacityof the mind?

At the meetings of a district medical society, which are held monthly in a city of ninety thousand inhabitants, it often happens that not more than a dozen members are present, and the chances are that a majority come from small towns and villages in the "rural districts" from ten to twenty-five miles away — the City doctors forgetting all about the meeting.

We are living in the best age the world ever saw and have the best of everything. As taught by science the best of everything — the fittest — survives.

So, let us "strike an average" and conclude that even in the "rural districts" the people can obtain advice and medicine far superior to that which Royalty could command less than a year ago.

Franklin Co. O. COUNTRY DOCTOR.

The following poem is by the late Matthew Arnold, and is entitled "A Wish." Oddly enough, at his death it was entirely fulfilled:

Spare me the whispering, crowded room,
 The friends who come, and gape, and go;
The ceremonious air of gloom—
 All, which makes death a hideous show!

Nor bring, to see me cease to live,
 Some doctor full of phrase and fame,
To shake his sapient head, and give
 The ill he cannot cure a name.

Nor fetch, to take the accustom'd toll
 Of the poor sinner bound for death,
His brother-doctor of the soul,
 To canvas, with official breath,

The future, and its viewless things—
 That undiscover'd mystery
Which one who feels death's winnowing wings,
 Must needs read clearer, sure, than he!"

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Thermometer, indestructible index	$ 2.25	$ 2.50
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Fahnestock's tonsilotome, finest	5.50	7.00
10 vial, genuine morocco pocket case	2.35	2.50
Amputating and minor operating case	19.50	27.00
" " trephining case	29.60	35.00
Hypodermic Syringe, ordinary	2.00	2.50
" " finest; glass and hard rubber	2.75	3.00
Aspirator, and stomach pump (a perfect instrument) see page 116.	18.00	18.00
" French style	11.50	14.00
Post-mortem case	10.75	12.00
Paul E. Wirt fountain pen (best ever made), by mail	2.50	2.50

The above prices include postage, where instruments can be sent by mail; otherwise they will be sent by express, at expense of recipient. If any other instrument is desired, let us know and we will quote you price, with JOURNAL for one year. All these instruments are *warranted* first-class, and in prime condition. Thermometers are carefully packed, but will occasionally break in transit. They are sent by mail, *at the risk of the purchaser*, unless otherwise ordered.

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The following selected Recipes, as prepared by William R. Warner & Co., are respectfully submitted to the Profession:

PIL. PHOSPHORI 1-100 gr., 1-50 gr., or 1-25 gr. [Warner & Co.]

Dose.—One pill, two or three times a day, after meals.

Therapeutics.—When deemed expedient to prescribe phosphorus alone, these pills will constitute a convenient and safe method of administering it.

PIL. PHOSPHORI CO. [Warner & Co.]

℞ Phosphori 1-100 gr.; Ext. Nucis Vomicæ ¼ gr.

Dose.—One or two pills, to be taken three times a day, after meals.

Therapeutics.—As a nerve tonic and stimulant this form of pills is well adapted for such nervous disorders as are associated with impaired nutrition and spinal debility, increasing the appetite and stimulating digestion.

PIL PHOSPHORI CUM NUC. VOM. [Warner & Co.]

℞ Phosphori, 1-50 gr.; Ext. Nucis Vom., ⅛ gr.

Therapeutics.—This pill is especially applicable to *atonic dyspepsia*, depression, and in exhaustion from overwork, or fatigue of the mind. Phosphorus and Nux Vomica are *sexual stimulants*, but their use requires circumspection as to the dose which should be given. As a general rule, they should not be continued for more than two or three weeks at a time, one or two pills being taken three times a day.

PIL. PHOSPHORI CUM FERRO ET QUINIA ET NUC. VOM. [Warner & Co.]

℞ Phosphori, 1-100 gr.; Ferri Carb., 1 gr.; Ext. Nuc. Vom., ¼ gr.; Quinæ Sul,, 1 gr.

Dose.—One pill, to be taken three times a day, at meals.

Therapeutics.—The therapeutic action of this combination of tonics, augmented by the specific effect of phosphorus, on the nervous system, may be readily appreciated.

PIL. PHOSPHORI CUM QUINIA CO. [Warner & Co.]

℞ Phosphori, 1-50 gr.; Ferri Redacti, 1 gr.; Quinæ Sulph., ½ gr.; Strychnine, 1-60 gr.

Dose.—One pill, to be taken three times a day, at meals.

Therapeutics.—This excellent combination of tonics is indicated in a large class of nervous disorders accompanied with anæmia, debility, etc., especially when dependent in dissipation, overwork, etc. Each ingredient is capable of making a powerful tonic impression in these cases.

The method of preparing Phosphorus in pilular form has been *discovered and brought to perfection by us*, without the necessity of combining it with resin, which forms an insoluble compound. The element is in a perfect state of sub-division, and incorporated with the excipient while in solution. The non-porous coating of sugar protects it thoroughly from oxidation, so that the pill is not impaired by age. It is the most pleasant and acceptable form for the administration of Phosphorus.

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MEDICINE.

THE ANTAGONISM BETWEEN BELLADONNA AND OPIUM.—The importance of arriving at an absolutely correct opinion as regards the antidotal influence of atropia in opium poisoning cannot be over-estimated, since, of all forms of toxemia due to vegetable poisons, this is the most commonly met with, not only by the hospital physician, but also the ordinary practitioner. Perhaps no better example of the value of results obtained by experimentation on the lower animals can be adduced than the benefits derived from our increased knowledge of the physiological action of the two drugs whose names are at the head of this article.

Those of our readers who thirty years ago listened as students to lectures on therapeutics and kindred subjects, will remember that although the symptoms and treatment of poisoning by opium were dwelt upon as important matters, very little was known as to the direct causes of the signs or the reason for the treatment. Now we know that opium kills by depressing the respiratory centre, and that atropia acts as an antidote by stimulating it, and we also have such additional knowledge as will enable us to treat such cases understandingly, and with real reason.

Notwithstanding the fact that almost all writers believe atropia to be our mainstay in such cases, it is but right that evidence to the contrary should be at least brought to general notice; and in quite an exhaustive paper by Lenhartz the whole question now before us is most thoroughly aired from an almost purely clinical standpoint, by means of reports of cases and the aid of a considerable amount of bibliographical labor. The article as a whole, while not denying the usefulness of atropia as an antidote in opium-poisoning, rather decries its constant use, and points out that certain serious symptoms may arise if atropia be used. To be more concise, Lenhartz believes that the unqualified approval of atropia as an antidote in opium-poisoning, so commonly found in the text-books, should be regarded with disfavor, and that the drug should only be used as one of many remedies, and given with a full understanding of the conditions present.

We cannot help feeling that Lenhartz is right in this matter, and the importance of withholding atropine at certain stages of the poisoning can best be recognized by the recollection of the physiological action of the two drugs. It will be remembered that in opium-poisoning we have three stages: in the first there may be slight feelings of drowsiness ending with sleep; in the second a constantly deepening sleep with a slow, full, strong pulse, and respirations constantly decreasing in frequency, while in the third stage there exist a rapid, running, feeble pulse and profound depression of respiratory movement. This rapid, feeble pulse in the third stage is simply due to palsy of the peripheral vagi and depression of the heart muscle and its ganglia, coupled with the exhaustion resulting from ventricular distention due to the impaired pulmonic movements. If the reader now calls to mind the fact that atropine is likewise depressant to the heart muscle even in medicinal doses, it at once becomes evident that the use of atropine in this last stage of opium-poisoning may, while stimulating respiration, so depress the heart as to bring on serious circulatory symptoms or perhaps death.

While we may rely on atropia in the first and second stage of the poisoning, in the third stage we think it may be laid down as an invariable rule never to use atropia unless accompanied by cardiac stimulants, and that even then the patient should be most carefully watched for signs of circulatory disturbance. It is very evident from the history of most of the cases in which unfavorable results have been reached under the use of atropia that the condition of the circulation was overlooked by the attendant when the drug was administered, and that death resulted from cardiac failure in the manner just stated.—*Medical News*.

CORPULENCE AND ITS ATTENDANT EVILS.—Professor E. Heinrich Kisch, of Prague, has contributed to the *Deutsche Medizinal-Zeitung* an article on the cosmetic therapeutics of corpulence, and he justifies himself in viewing the evils of corpulence from the cosmetic point of view with the reflection that it is commonly not the involvement of the general health that leads corpulent persons to seek for medical advice, but the disfigurement that obesity entails. Foremost among the blemishes to which it gives rise he ranks excessive size of the breasts in women, which, as he has often observed, leads them to undergo dietetic and medicinal courses of treatment so severe as to bring about a sort of marasmus. He alludes to the advice given by Galen and Celius Aurelianus to the Roman ladies thus affected to use poultices of Lemnian earth, and adds that the fashionable ladies of Paris endeavor to restrict the growth of their breasts by compressing them with hemispherical cases. But he has not found compression to be of any avail, and he advises against the internal use of preparations of iodine, for, although it reduces the size of the breasts, it does it at the expense of the general health. Local applications are more to be recommended, especially an ointment composed of about fifteen grains of iodoform deodorized with Tonka beans, half an ounce of vaseline, and two drops of oil of peppermint. This is to be rubbed into the breasts, and they are then to be swathed with linen moistened with a warm solution of one part of alum and five parts of acetate of lead in a hundred parts of distilled water, impermeable paper being laid over the whole. The dressing should be changed night and morning, and its use should be continued for several weeks. To prevent flaccidity and wrinkling of the breasts as the fat disappears, he prescribes frictions with some aromatic spirit and suspension of the organs with a bandage.

It is in the abdomen that corpulence is the most obstinate. Here iodine applications are of little avail, and massage is most useful. The author commonly prescribes frictions with a solution of potassium iodide in twenty parts of vinegar of squill and the constant use of a girdle, preferably of deerskin. The excessive sweating of the corpulent is best treated by the local and general application of cold water perfumed with simple or aromatic vinegar. The use of protective pieces of rubber, oiled silk, etc., in the armpits is injurious, because it interferes with the vaporization of the secretion and causes it to soak and irritate the epidermis. Irritations of the skin from chafing, as under pendulous breasts and in the fold of the groin, may be mitigated or prevented by dusting the parts several times a day with a powder composed of one part of salicylic acid and fifty parts each of Venetian talc and rice-starch. Over-activity of the sebaceous glands, comedones, rosacea, and brownish, rusty pigmentations are apt to accompany corpulence, and they are to be treated by measures aimed at the corpulence itself, especially careful regulation of the diet. For the baldness that is often associated with an excessive development of fat in young persons the author states that he knows of no good remedy.—*New York Medical Journal.*

INTERESTING FIGURES REGARDING THE MORTALITY AMONG FARMERS.—The Rev. J. S. Pattengill, Presbyterian clergyman at Cannonsville, who has served in the ministry for nearly 50 years, furnishes some interesting statistics and observations relating to the increasing longevity in the rural districts of Central New York. He has attended 573 funerals altogether since 1840. The average length of life of the first hundred dead whose funerals he attended was 26½ years, 7 of these having lived over 70 years; of the second hundred the average was 36 years and 13 were over 70 years; of the third hundred, the average was 37, and 20 were over 70 years old; of the fourth hundred the average was 37, and 28 were over 70; of the fifth hundred the average was 37½, and 32 were over 70; and of the remaining 73 the average was 58, and 32 were over 70, the oldest of the 73 being the late Levi Hanford of Walton, who died at 96.

These remarkable figures, it should be noted, apply to an interior farming population, from which large numbers of the young folks "go West" or to the big towns, and where the quiet and wholesome environment of rural existence promotes longevity to an unusual degree. The venerable clergyman's records also show that of infants now born fewer die in childhood in proportion to births than died in years gone by. Not as many children are now born in proportion to population as were born 25 to 50 years ago. There are more deaths proportionately caused by drunkenness and by lung complaints in these days than in former years, and these fatalities serve to keep down the comparative scale of longevity below what it would otherwise reach. The increasing length of years attained by the rural population is attributed to the exemption of the present generation from the severe toils and hardships encountered by their progenitors in clearing up the wilderness, and to the better understanding and observance of the laws of health.—*Mutual Life Ins. Co. of N. Y., Weekly Statement.*

CHLOASMA.—This is a very frequent affection, occurring upon the face, especially in women suffering from disorders of the generative apparatus. It is rare in men. The common name for it is "moth patches." The affection consists of yellowish-brown or brownish patches on various parts of the face. The forehead, chin, temples and lower portions of the cheeks are principally affected. There is neither desquamation nor infiltration, and no subjective symptoms of any kind are present.

The causes are obscure. It is known that the discoloration appears frequently during pregnancy, to disappear after parturition. It is also a frequent accompaniment of uterine and ovarian disorders, and often disappears when these troubles are cured. The relation of cause and effect is, however, not known.

Chloasma resembles very closely tinea versicolor, a discoloration of the skin due to a vegetable parasite. The latter, however, in nearly all cases, occurs upon the chest, abdomen, arms and neck, namely upon those portions of the body covered by clothing. It is very rarely seen upon the face or hands. Chloasma, on the other hand, is almost entirely limited to the face. Tinea versicolor is slightly scaly and sometimes itches. Neither of these features are present in chloasma. Finally the latter disease occurs nearly altogether in females after the age of puberty;

and generally in those who suffer from derangement of the generative organs; tinea versicolor is oftener seen in males.

The treatment of chloasma consists in removing the uterine or ovarian disease, if any can be found upon which the pigmentation depends, and in promoting the casting off of the superficial epidermal layer so as to bring a less pigmented stratum to the surface. For this purpose applications recommended for freckles will be found useful. The ointment or lotion of salicylic acid, or a lotion of corrosive sublimate 2.2 grains to the ounce may be used. Soft soap spread upon strips of muslin like an ointment, and allowed to remain upon the pigmented skin for several hours, will produce a maceration and desquamation of the epidermis which often leaves the skin of a normal color after the redness has disappeared. The discoloration will, however, return unless the use of one of the ointments or lotions mentioned is continued.

The application which will give the most satisfactory results is an ointment of subnitrate of bismuth and white precipitate, in the following combination: ℞.—Bismuthi subnitrat., hydrag. ammoniat., aa ʒ i; vaselini, ℥i. M. ft. ungt. S: Apply to the discolorations at bed-time, and remove in the morning with Hebra's spiritus saponis kalinus.

This ointment I have used in a large number of cases with uniform success. Sometime it is a little too active and produces irritation of the skin. Its use must then be intermitted for a few days, or the ointment made weaker. Some skins can stand a much stronger application, however, and I have used as much as two drams of each of the active ingredients to the ounce of vaseline.

The effect becomes manifest in a few days after beginning its use. There is slight scaling and roughness of the skin, showing that a furfuraceous desquamation of the epidermis is going on. In the course of ten to fifteen days the skin has become much paler, and if the application be continued the normal tint of the skin can be regained. This can, however, only be maintained by the continued use of the ointment, unless the disease of the internal organs upon which the discoloration depends has been removed.

The pigmentation of the skin from sunburn usually soon disappears after the cause has ceased acting. The bleaching can be somewhat hastened by a lotion of corrosive sublimate in emulsion of almonds (gr. j: ℥ ii).

Permanent discolorations of the skin are sometimes produced by a mustard poultice or blister. Hence care should be taken to avoid making these applications to the face, or upper part of the chest in women, as they may prove the source of an annoying or humiliating disfigurement in the latter. I have seen a number of cases in which the chest had become pigmented from mustard poultices, thus interfering with the wearing of dresses cut decollete. To many women this is not altogether a trifling matter.

In these discolorations the use of the salicylic acid lotion above mentioned will prove useful. The prognosis must not be too sanguine, however, as the pigmentation is liable to return.—*American Med. Digest.*

SACCHARINE IN DIABETES.— Dr. Charles W. Purdy, of Chicago (*Jour. of Amer. Med. Ass.*), claims we are justified in the following conclusions in reference to the use of saccharine in diabetes:

1. That in this product, we possess a flavoring agent for food and drink, the palatability of which is quite equal to that of the finer grades of sugar, and which may be used by diabetic patients with the greatest impunity.

2. That, through its antiseptic properties, it retards the abnormal fermentative changes in the stomach so common in diabetic patients—thus promoting digestion and relieving flatulence.

3. That, while as yet we are without sufficient practical data to judge of its blood effects in large doses to diabetic patients, yet both chemistry and physiology would indicate its use for the purpose of favorably influencing some of the more fatal complications of the disease.

SYRUP OF TAR IN WINTER COUGH. In the *British Medical Journal*, March 3, 1888, Dr. William Murrell says that tar is undoubtedly one of the best remedies for chronic bronchitis and winter cough. He uses the syrupus picis liquidæ of the U. S. Pharmacopeia. With the addition of a few drops of ammonia or other alkali the syrup can be prepared of almost any desired strength of tar. He usually gives it in doses of from two to four drams every three hours, or even oftener. If disagreeable to take, it may be flavored with syrup of wild cherry. The efficacy of the combination may be greatly increased by the addition of a little apomorphine. Six minims of a two per cent. solution may, he says, be given frequently without exciting nausea. During the past two years he has used this method of treatment in nearly a hundred cases of chronic bronchitis and winter cough, and has every reason to be satisfied with the result. The cough is relieved, expectoration is rendered easier, and the patient usually sleeps well at night. The syrup of tar alone without the apomorphine is admirably adapted to the treatment of the coughs and colds of children, and has none of the disadvantages of preparations containing opiates.—*Am. Med. Digest.*

IN a lecture reported in the Sacramento *Medical Times*, Professor Oliver said that at the onset of a papular eruption it is often difficult to decide whether the case is one of measles or of small-pox. The following method is a certain means of determining by which of these diseases the eruption is produced: If, upon stretching a portion of the skin, the papule becomes impalpable to the touch, the eruption is the result of measles; if, on the contrary, the papule is still felt when the skin is drawn out, the eruption is the result of small-pox. This method of arriving at a diagnosis was discovered by M. Grisolle, and might well be designated as Grisolle's sign. M. Ollivier states that, in modified small-pox, marked or slight fever, with suppuration, is always present. In various eruptions, even when these are confluent, the skin of the abdomen is the least affected.

CEREBRAL SYMPTOMS IN THE PNEUMONIA OF CHILDREN.—Dr. L. Emmet Holt dwells upon the importance of promptly recognizing the cerebral symptoms of pneumonia. In the *Medical Record*, April 7th, he makes prominent the diagnosis, and thinks these cases demand more careful and repeated examinations of the chest.

How can these cases be distinguished from meningitis?

Cough is usually present, but it is wanting in the first two or three days in a sufficient number of cases to make it of little value in the doubtful, obscure ones.

Activity of the alæ nasi may be seen in many other conditions, but it is rarely absent in pneumonia.

Alteration of the pulse-respiration ratio is more important than any other single symptom. Accelerated respiration, out of proportion to pulse and temperature, should always lead us to suspect the lungs, whatever other symptoms are present. Irregular respiration, especially of the Cheyne-Stokes type, is almost never seen in pneumonia.

The slow, irregular or intermittent pulse in meningitis does not occur in pneumonia. Irregularities and intermissions in a rapid pulse are quite common but are of no significance.

It is very rare for the temperature in meningitis, either tubercular or cerebro-spinal, to remain so high as we commonly find it in pneumonia. In fact, Thomas ("Gerhardt's Hanbuch") asserts that a persitent high temperature almost certainly excludes meningitis. The loss of knee-jerk is the rule in meningitis (Hughlings-Jackson and Angel Money). I am not aware that it has been recorded to be absent in pneumonia and can see no reason why it should not form as valuable a symptom for differential diagnosis of meningitis from pneumonia as it is said to be from typhoid fever.

Localized paralyses are not met with in pneumonia unless there be a complicating disease of the brain.

The cerebral symptoms of pneumonia are commonly less severe and not so continuous as those of meningitis, so that the progress of the case nearly always clears up the diagnosis by the rapid subsidence of the nervous symptoms at the crisis, although we may have been in some doubt up to this time.

ANTIPYRIN IN MIGRANE.—During the last two months I have treated twenty cases of migraine; several of the patients having suffered for over ten years, and, finding all drugs useless, had become reconciled to being periodically prostrated for one or two days. In every case I ordered eight grains of antipyrin, dissolved in water or lemonade, to be repeated each half hour until cured, the patient to remain lying down. Most of the cases were quite cured by two powders, but the most obstinate yielded to three, and in no case did the antipyrian fail. A cup of warm tea sometimes seemed to help, and the only inconvenience due to the treatment was, in a few of the cases, considerable sweating.

Many of the patients can hardly credit that, instead of being utterly helpless for twenty-four hours, they can now cut short an attack in one hour.

There is another great advantage in using antipyrin, and that is that it prevents as well as cures these attacks. One lady, who cannot remember having fewer attacks than three a month, each lasting about thirty-six hours, has been quite free for about eight weeks, and this she attributes solely to the occasional use of an antipyrin powder.—*Med. Review.*

FOR HEADACHE.— Dujardin-Beaumetz recommends the following:

℞.—	Caffeine	gr. iv
	Salicylate of sodium	gr. iv
	Hydrochlorate of cocaine	gr. iss
	Water	f℥ij
	Syrup	fʒvss

M.— Take the whole at one dose at the beginning of the attack.

A CORRESPONDENT writes to the *Journal of the A. M. A.* regarding a recent editorial in that journal upon the use of nitrite of amyl in dyspnea: "I had a patient with Bright's disease, who suffered most agonizing paroxysms of dyspnea — they were simply terrific, notwithstanding the use of ordinary measures. There was no asthma whatever. On the recurrence of an attack, after reading the editorial, I gave 3 drops of nitrite of amyl in a teaspoonful of brandy without expecting much result, but simply as a *dernier ressort.* The result was simply miraculous! It was almost instantaneous. From a sense of impending suffocation the patient began to breathe perfectly freely in less than five minutes. This relief lasted upwards of twelve hours, when the same quantity was repeated on the recurrence of another attack, with the same result, and without increasing the dose. The nitrite was given on every recurring attack until the attacks finally disappeared, and for several days the patient has had no dyspnea whatever. The original disease, however, is unaffected by the nitrite."

FOR CARDIAC DEBILITY.— Prof. J. M. Fothergill recommends the following:

℞.—Tinct. digitalis	♏x.
Spt. chloroformi	♏xxv.
Inf. buchu	℥j.—M.

Sig.— To be taken three times daily.

Dr. Trousseau recommends as a substitute for codliver oil the following, which is certainly much less repulsive to most patients: Fresh butter, 2500 parts; common salt, 40 parts; potassium bromide, 30 parts; potassium iodide, 1 part. To be spread on bread.

THE "AFTER-TASTE" OF THE SALICYLATES.—When salicylic acid or salicylate of soda is given in solution, an unpleasant taste is so important an after consideration that nausea, followed by vomiting, is often the result. This has been almost a universal objection of patients. This condition of affairs can frequently be averted by placing a small quantity of table-salt upon the tongue immediately before the administration of these preparations.—*Ind. Med. Journal.*

The physician is frequently asked by lady patients for something that will remove "moth" and freckles. A writer in the *Pharm. Zeit.* says that a wash consisting of equal parts of lactic acid and glycerine will do the work, and is harmless when applied to the skin.

INDICATIONS FOR THE USE OF NITRO-GLYCERINE.—The value of nitro-glycerine in various diseases, as angina pectoris, hemicrania, and neuralgia, and also in sea-sickness, certain forms of anemia, etc., depends on the existence in these of an irregular distribution of the blood. This abnormal condition may be recognized by a certain grade of pallor of the skin, especially of the face, an appearance co-existent with a weak pulse and small radial arteries, hard and frequently situated at a certain depth. When, on the contrary, the headache and neuralgia occur in persons with chronic congestion of the subcutaneous vessels of the face, nitro-glycerine is contra-indicated; and similarly it should not be used in asthma when the face is congested from the effects of the emphysema. Thus it may be said that the best therapeutic results from nitro-glycerine may be obtained in these cases in which angina pectoris, neuralgia, etc., are associated with pallor of the countenance.

The condition of the pulse is the best indication for the use of nitro-glycerine and the safest guide for the determination of the time in which should begin the cure. The smaller the radial artery is, so much more rapidly does it dilate under the influence of the drug, and so much the less are the secondary effects produced by it; on the contrary, the fuller the pulse, and the more tense the radial artery, so much the less this resents the influence of it.

When the pulse is small, the usual dose of one drop of one per cent. solution is sufficient, while if the pulse is large, two drops may be required to obtain the full effect. When the radial is soft and the pulse weak, smaller doses should be given—½ to ¼ of a drop. The sensation experienced by the patient, throbbing and pain in the head, as well as the distention of the radial artery under the observer's finger, should be the guide for the increase of the dose.—*Giornale Internazionale delle Scienze Mediche.—N. E. Med. Mo.*

I PRESCRIBE SUCCUS ALTERANS almost daily. This is, I believe, the best proof I can give of my opinion of its merits in the treatment of those cases requiring alteratives and tonics. It is undoubtedly a pharmacological remedy of great merit, well worthy of the prominence it has taken. M. L. AMICK, M. D.,
Cincinnati, Ohio.

IT is said that water containing even a trace of lead will be turned blue on adding a little of the tincture of cochineal.

SURGERY.

THE TREATMENT OF CONGENITAL TALIPES VARUS.—(Geo. R. Fowler, M. D., in *Brooklyn Med. Jour.*)—As soon as practicable after birth, preferably within the first few hours, an attempt should be made to restore and retain in the normal position the disturbed foot. Sayre advises that the nurse or attendant should be taught how to place the foot in position and then hold it for as long a time as possible, pending the application of some retentive dressing. This is sound teaching, theoretically, but practically not much benefit is derived from it, inasmuch as the nurse soon tires and relaxes her grasp, and finally abandons the attempt altogether.

Some years ago I was called to attend a child born with talipes varus, and then and there applied a dressing of the common perforated plaster, made of a rubber and gum compound, and sold as a sovereign remedy for all the pains from which mankind ever suffered. I refer to the "porous plaster" of the shops. To my mind, it possessed a quality needful for my purpose, namely, that of adhering with the greatest tenacity; the perforations were not objectionable, but rather advantageous. A strip of this plaster about an inch wide was wrapped around the foot anteriorly to the middle tarsal joint, and then brought up the fibular side of the leg to a point above the knee, and then held by the nurse, while I bandaged the foot and leg with a flannel roller. The outcome of this case was a most rapidly brilliant recovery, but I have hesitated to claim any priority in this practical method. I continued to use this method with success, until the brochure of Prof. Ogston, of Aberdeen, appeared, when I added a plaster-of-Paris dressing to my adhesive plaster retention dressing, and at once developed a most practical, simple and efficient method for the immediate treatment of congenital club foot. My method differs in several important particulars from that described by Prof. Ogston. In the latter the foot is held in position by an assistant, while a plaster-of-Paris bandage is applied and hardens. In my method, the adhesive plaster, wrapped first around the foot and then carried up the outer side of the leg, holds the foot in good position while the plaster-of-Paris hardens.

Careful watching of the little toes will give ample warning of any strangulation, and enables the surgeon to avoid any such unpleasant sequences to the treatment as gangrenous ulceration from pressure. In only one instance has this occurred in my practice, and in that case it resulted from a failure on the part of the parents to bring the patient to my office upon the day appointed. I make it a point to see the patient every day for three days; if nothing untoward occurs, and the nurse is sufficiently careful of the baby to prevent it from soiling the dressings with urine, etc., they may be left *in situ* for ten days from the time of application. They are then removed, the integument of the leg and foot bathed with spirits and water, the muscles kneaded and shampooed, and another dressing applied.

Adhesive plaster, of almost precisely the same composition as that which proved so useful to me in the case above referred to is now regularly sold under the name of American surgeon's rubber adhesive plaster.

Each time the foot is redressed it will be found to be more readily retained in its normal position, and tenotomy, other than that of the tendo-Achillis *after* the anterior portion of the foot is restored, to overcome whatever vertical displacement of the os calcis remains, will rarely be called for.

Another practical inquiry in connection with this subject is that of the performance of tenotomy. In what class of cases should tenotomy be done, what tendons should be divided, how should this little operation be performed, and in what order should the different tendons be attacked. There can be no question of the necessity, in certain instances, particularly those in which treatment has been delayed, of assisting the treatment by dividing obstinate structures, which obviously stand in the way of a correction of the deformity.

It is not my purpose in these general observations upon the management of talipes, to lay down rules applicable to all varieties of the deformity, but I do wish to enter my protest against the common practice of cutting the tendo-Achillis the very first thing in the treatment. Nothing can be more unscientific, and nothing can stand so much in the way of successfully treating the varus and valgus cases particularly, as this practice. The medical attendant, grasping the foot and attempting to rotate and reduce it to its normal position is struck by the fact that the tendo-Achillis is tense and firm, and is apparently the only barrier in the way of a complete reduction. But it should be borne in mind that the distortion in the last mentioned varieties of the deformity is located at Chopart's joint, and that the condition of the tendo-Achillis is of comparatively slight importance, when the fact is taken into consideration that this very action of the gastrocnemius and soleus muscles serves as a means of steadying the posterior portion of the foot, and enables the surgeon to more satisfactorily correct the deformity as it exists at the medio-tarsal junction. In other words, if the tendo-Achillis is left intact the force applied to reduce the varus will act at the point of least resistance, namely, at Chopart's joint. On the other hand, if this tendon be divided, although an apparently brilliant restoration of the foot has been accomplished, it will be found that this has been done, not by unfolding the foot at the site of the deformity, but, in a great measure at least, by a lateral deviation of the entire foot in its relation to the tibia and fibula. As the treatment progresses the tendon becomes reunited, the os calcis becomes fixed, and the deformity, as it originally existed, returns. But very little, if anything, will have been accomplished, and the varus becomes as pronounced as at first, and far more likely to become permanent; for valuable time will have been lost, and the deviation in form of the other bones of the tarsus, particularly of the astragalus, becomes almost unalterable.

This point, the late division of the tendo-Achillis, in cases where it is required at all in talipes varus, is mentioned by Mr. Adams in his essay upon club-foot. I have thought that the reasons given by Mr. Adams have not been insisted upon with sufficient positiveness, and in the light of considerable experience in both methods, I have no hesitation in adding my voice in advocacy of this method.

The division of the plantar fascia will very seldom become necessary, in fact it is far less frequently demanded than any other cutting operation for varus. Except in those rare cases in which there is an intractible shortening of the foot and a decidedly increased convexity of the tarsus, the contraction of the plantar fascia will not be found to stand in the way of a reduction of the varus. It is therefore obvious that the division of this fascia, if performed at all, should form an intermediate period between the correction of the deformity as it exists in the anterior portion of the foot by the means already detailed, with or without tenotomy of the tibial tendons, and the final release of the os calcis by division of the common tendon of the gastrocnemius and soleus muscles. Another point to be borne in mind, as Mr. Adams has likewise pointed out, is the assistance to be obtained from the fixing of the os calcis by the tendo-Achillis while the anterior portion of the foot is lifted up in the attempt to stretch the plantar fascia, and thus overcome the hyper-convexity of the tarsus, to which, together with the vertical tendency of the os calcis and a consequent dropping downward of its anterior surface, the equinus element of one of the commonest variety of club-foot owes its existence. The tendo-Achillis once divided, no other way remains to overcome any shortening of the plantar fascia save that of making clinch pressure downward upon the convex portion of the arch — the most prominent portion of the dorsum of the foot. Here the skin is drawn tightly over the bone, and pressure is but illy borne. Should the plantar fascia be divided at this stage, it will, in the great majority of cases, be found impracticable to keep the divided ends sufficiently apart to prevent their reunion by any amount of pressure brought to bear upon the tarsal convexity. On the other hand, with the os calcis fixed and immovable, although in a malposition, strong upward traction of the metatarsal portion of the foot will put this fascia upon the stretch, and, in case of its division, widely separate its cut edges.

The method of performing tenotomy should secure some consideration. Inasmuch as the antiseptic treatment of wounds enables us to convert open incisions into what are as safe, and in fact are essentially subcutaneous ones, so far as our purposes are concerned, there can no longer exist any excuse for a blind groping about under the skin for a tendon or a fascia, which may be so far displaced as to render the finding of it problematical, to say nothing of the very great improbability of dividing all of its structures when found. I prefer, by far, to make all tenotomies except that of the tendo-Achillis by open incision, working up the tendon with a blunt hook and systematically dividing it, and having the aid of the visual organs to ensure its complete division. The little wound is at once closed with catgut, a light antiseptic dressing applied, and the foot restored as nearly as possible to its normal position and dressed with the adhesive plaster and plaster-of-Paris dressing. It has not been my habit to delay complete restoration for two or three days, as advised by Mr. Adams, and I have never had occasion to regret differing from him upon this point. When the foot is again redressed, the little wounds will be found to have healed kindly, and the deformity thereafter continues to progress to a cure.

RAPID AND SIMPLE METHOD OF REDUCING DOWNWARD DISLOCATION OF THE SHOULDER.—Dr. P. F. Abril fixes the humerus and makes the glenoid cavity descend on the head of the humerus. He claims for his method that it is most simple, easily, and quickly done, that chloroform is not necessary to obtain muscular relaxation, and that the pain is trifling, and that no assistants are required. He makes the patient stand with a crutch in his axilla; he then holds the hand of the affected side, making slight traction downwards; the patient is now to let himself down as if he were going to fall on his knees, and as he falls the head of the humerus glides into its normal position, and the patient is surprised at finding himself cured.—*N. Y. Med. Abstract.*

THE TREATMENT OF PHLYCTENULAR KERATITIS IN CHILDREN.—Trousseau reports that he obtains good results from the following:

Vaselin	gr. 75.
Hydrarg. ox. flav	gr. 3¾.

Once daily a bit of this ointment as large as a grain of wheat should be introduced into the eye. Three times daily compresses wet in a warm solution of boric acid should be placed upon the eyes for a quarter of an hour:

Acid. boric	ʒ 3.
Aquæ	℥ 11.

Trousseau classifies keratitis and its treatment as follows: Keratitis phlyctenular, superficial and vascular, and corneal opacities may be treated with the yellow oxide of mercury. Certain superficial keratites, corneal ulcers, and abscesses, call for eserine. In cases of parenchymatous keratitis atropia should be employed.

DR. LEDETSCH, of Prague, has used injections of quinine in gonorrhea, with brilliant results in many cases. Several chronic cases, which for months had persisted in spite of all treatment, to the author's astonishment were cured in a few days. He employs the following injection: ℞. Quiniæ Bisulph., 1.0; Glycerini, 25.0; Aq. Destil., 75.0. At first, three times daily, then twice, and later only once. A slight burning sensation is alone complained of.—*Journal of Cut. & Gen.-Urin. Dis.*

BORATE OF GLYCERINE IN THE TREATMENT OF OTORRHEA.—(L. Marvin Nichols, M. D., in *S. W. Med. Gazette.*)—On April 7, 1887, Mrs. M. came to my office for treatment for a discharge from the orifice of the right ear, which she said had troubled her for fourteen years, and that the discharge had been almost perpetual for that length of time, accompanied at times with the most excruciating pain.

On examination, I found the inner structures of the ear swollen, and discharging pus from small suppurating ulcers.

I got no history of syphilis, etc., in the case, and patient seemed to be in perfect health with this exception, so I gave her no internal treatment at all, but syringed the ear with warm water and soap, then dropped five minims of the borate of glycerine (first warmed) in the ear, plugged the meatus with cotton wool, and then instructed the patient to repeat the dressing each morning and evening for twenty-five days, and then to come back to the office, which she did; on examination I found the swelling had disappeared, and the discharge had entirely ceased. She had felt no pain in the ear in fifteen days, and at the expiration of two months the ear looked perfectly normal and healthy, and has not given her any trouble since.

On July 18th, 1887, Mr. B. came to me with a discharge from both ears, which was the result of secondary syphilis. He also had ulceration of the lateral and posterior walls of pharynx, the uvula, soft palate, and lining membrane of the nose. I placed him on the iodide of potassium, and used the borate of glycerine for the discharge from the ear; and a spray from atomizer of mxii carbolic acid, to the ℥ of water. At the expiration of thirty days he came back to the office, and informed me that there had been no discharge from the ears in fifteen days, that his throat was much better, and that he felt better than he had in ten years.

September 10, Mrs. H. brought her child, two years of age, to my office with a discharge from the left ear that had been present from birth. It was treated in the same way as in the first case, only with a weaker preparation, and two minims instead of five, and with equally as good results.

A lad, aged fifteen years, had been troubled with a discharge from the left ear, for two or three years, beginning after a severe attack of earache. Was treated in the same way as the first case, and with the same results.

The first two cases had been under the care of five or six eminent physicians, for otorrhea; but had received no benefit at all until the borate of glycerine was used.

REMEDY FOR MYALGIA.—An old and well-known formula combined with lanoline had such a quick and favorable effect in myalgia of the scapular and brachial regions, that I feel safe in offering it to the profession: ℞. Hydrate chloral, gum camphor, āā ℥ ss. Mix well, until liquid, and add lanoline, ℥ j. M. S.—Rub well over painful parts. To show what lanoline can do, it fully relieved the pain in six hours, and had the constitutional effects of chloral as fully as if the person had taken gr. xx.–xxx per mouth. Only two applications were used, and only a limited portion of the salve.

OBSTETRICS.

THE FEEDING OF SICK CHILDREN.— Professor Jacobi, of New York, contributes to the *Archives of Pediatrics* a very exhaustive article. He points out that from the very first month of life a distinct diastatic effect is produced by the oral secretion, and that it increases every month. Moreover, this effect persists in the stomach for from half an hour to two hours; but it ceases altogether as soon as hydrochloric acid has begun to be secreted. Lactic or other organic acid alone is secreted with the pepsin in the stomach for the first half hour or more, and in debilitated subjects for the greater part or the whole of the digestive period. The diastatic power of the pancreas begins with the fourth week only and remains feeble up to the end of the first year.

To increase the secretion of pepsin and hydrochloric acid, which are deficient in anemia, convalescence, and more particularly in fevers, large quantities of water are required, and peptones are not absorbed unless greatly diluted. Therefore, not only should infant's food be mixed plentifully with water, but water should be given alone, occasionally, more especially in the summer time. Water is indicated in diarrhea, general inanition, perspiration, and feverish diseases; where it is not retained, enemata should be employed. Further, where metamorphosis is slow, water increases the elimination of urea and carbonic acid; when the urine is concentrated, water protects the kidneys from undue irritation; liquifies the mucus in laryngitis and bronchitis, and removes the dryness of the bowels in constipation.

On the other hand, in some forms of acute gastro-enteritis, where vomiting and diarrhea are excessive, the only salvation lies in total abstinence for from four to ten hours. Sugar must be added to an infant's food because human milk contains a larger proportion than that of either cow or ass; but cane sugar is preferable to milk sugar, because it is much less rapidly converted into lactic acid.

Milk should never be given to well or sick without the addition of table salt. This, amongst other things, prevents the solid coagulation of milk. Fatty substances must be given with caution. The white specks in babies' motions are nearly always composed of fat and epithelium, and the administration of cream or cod-liver oil is very injurious to such cases.

The mixed milk of a dairy is preferable to that of one cow; it must be boiled before used. Condensed milk is not uniform, and its use for that and other reasons is precarious. Goat's milk contains too much casein and fat, besides being otherwise incongruous. Skimmed milk, prepared in the usual slow way, is objectionable, because acid. No infant's food should contain more than one per cent. of casein. The best way to dilute cow's milk and at the same time render it less liable to coagulate in large lumps, is to add a decoction of a cereal — barley, when there is a tendency to diarrhea; oatmeal, when the tendency is to constipation. The newly-born should have boiled milk (sugared and salted) mixed with four or five times its quantity of whole-barley water; at the age of six months they should be of equal parts. Gum arabic and gelatine may be used in similar manner. These are not only diluents, but, under the influence of hydrochloric acid, nutrients. Beef-tea, or, when there is diarrhea, mutton broth, is advisable towards the end of the first year or much earlier than this in rickets, undue adiposity, and retarded teething. Peptonized beef-tea, such as Rudisch's, may be mixed with broth. Scraped beef is easily digested, but is open to the objection that tenia medio-canellata may be caused by it. The white of an egg beaten up with six ounces of water and a little salt is a good temporary expedient. Cow's milk is rendered more digestible for those infants or adults who cannot tolerate it in its ordinary condition by mixing half a teaspoonful of dilute hydrochloric acid with a pint of water and a quart of milk and then boiling it.

Alcohol is contra-indicated in meningitis, acute cardiac ailments, gastro-enteritis, peritonitis, and acute dysentery. It is stimulant, nutritive, antipyretic and antiseptic. The amount necessary to reduce the temperature is that comprised in about three ounces of whisky or brandy. It must always be diluted, either with water or with properly prepared milk. "Whoever is not afraid of giving six ounces of whisky daily to a child, when one or two fail, or ten or twelve, when six fail, will soon convince himself of its power for good." Whisky is, as a rule, preferable to other stimulants; the ether of wines neutralizes the antipyretic effect of the alcohol, and the fusel oil its stimulating action.—*Medical Age.*

JABORANDI IN OBSTETRIC PRACTICE.—Dr. Jerome Hardcastle writes to the *Medical and Surgical Reporter* as follows: Having for many years noted the fact that parturition does not progress favorably till diaphoresis occurs, I have for some months past induced this condition, in the early stages of labor, by giving fluid extract jaborandi (green—the brown has proved worthless in my hands). My plan is, when called to a case, to order a warm brick to be applied to the feet—which are always cold—

and then to give one-third of a teaspoonful of fluid extract jaborandi in half a wineglassful of water, and repeat the dose every half hour until perspiration occurs. It is very seldom that more than two doses are required. The first effect of this medicine on the patient is soothing, she becomes more quiet, and bears her pains with resignation. Upon being questioned, the patient often states that her pains do not hurt her as they did. On examination, after diaphoresis occurs, the os will be found dilating rapidly; the soft parts to be in a favorable condition; and in a short time the labor will be satisfactorily terminated. Should the patient appear weak from the sweating, I wipe the face and neck with a dry towel, and give her a teaspoonful of whisky, or half as much of aromatic spirits of ammonia.

Since using the above remedy, I have had no occasion to use ether, chloroform or the forceps. I have not seen any mention of the use of jaborandi in obstetric practice; but having such favorable results from its employment, I recommend it to the consideration of the profession.—*S. W. Med. Gazette.*

CONGENITAL CONSTIPATION.—Malformations of the intestinal tract, such as strictures or complete interruptions, will either terminate fatally or require surgical treatment. The latter class includes imperforate anus and rectum. In these cases, where the obstruction is complete, we can not speak of constipation. This condition may, however, be found to depend on an anatomical peculiarity which is quite frequent, and may give rise to mistakes in diagnosis and treatment. The colon descendens of the newly-born is quite long. The sigmoid flexure, which I have found to measure as many as twelve inches, is bent upon itself several times in the narrow pelvis. Thus the convolutions of the intestine will press upon and compress each other to such an extent as to result in obstinate constipation. In some extreme cases the babies died without or with colotomy, which was performed on the strength of a mistaken diagnosis. The treatment of that congenital form of constipation must be adapted to the anatomical condition which gives rise to it. Rectal injections alone are rational. They must be made daily, at least once a day, and continued up to the completion of the fifth or sixth, or even seventh year. At that period the normal relations of the several parts of the intestine are accomplished, the pelvis becomes larger, and evacuation of the bowels easier. No purgative medicines must be resorted to, inasmuch as the obstacle is mechanical only. There is, however, a single indication for their administration,—viz., those symptoms depending upon constipation, which point to the absorption of intestinal putrid gases above the obstruction. Septic fever, high temperatures, and serious reflex symptoms—such as convulsions—may require the speedy evacuation of the bowels. Though such occurrences are rare, they are sometimes met with.—*A. Jacobi, in Arch. of Ped.*

MAMMARY ABSCESS.—I wish to add my testimony, from an experience of over fifteen years, in regard to the use of sponge-dressing for abscesses, so far as it applies to mammary abscesses. I know of no means so safe, sure and rapid as equable compression by a large bathing sponge to insure speedy cessation of suppuration and a complete closure of the abscess cavity in the female breast. After evacuating the pus through a fairly large incision, I apply a large coarse bathing sponge cut out in the centre to receive the gland, and steeped in hot two per cent. carbolized water, and rapidly squeezed dry, over the whole breast, cover it with oiled silk, and press it firmly against the thorax by two large folded three-cornered bandages, the first lifting the breast up and being tied behind the neck, the second going directly around the thorax. The abscess-cavity is thus kept continually emptied, and its walls being in apposition by compression, incline to adhere, and thus secure a speedy closure of the abscess.

According to the amount of suppuration, the sponge is washed and reapplied three or four times in 24 hours for the first day or two—later on, less frequently. The largest mammary abscesses I have seen, involving the whole gland, have been completely closed under this treatment in less than one week. It is particularly applicable to cases where some of the gland tissue is still hard and brawny, and where the drainage-tube only seems to irritate the wound.

This dressing is convenient, inexpensive, easy of application, and perfectly efficient, in every way far preferable to drainage and strapping.

I have not found it necessary to syringe out the abscess-cavity with bichloride solution, although if the pus were offensive I should certainly do so.

I do not remember where I first heard of this method of treating mammary abscesses, but it certainly was not from the books. Since I have been using it, I believe I have seen it mentioned in surgical literature; where, I do not recollect.—*Paul F. Munde, in Practice.*

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℞ Acidi Salicylici (Merrell), from wintergreen, ℥ ss
Glycerini, ℥ ij
Ag. Calcis ad, ℥ viij
M. S. Use spray; Boro-Glycerine 50% solution, one part to 10, as a local application.

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℞ Tinct. Gelsemium,
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HANN & ADAIR, Publishers, Columbus, O.

THE OHIO STATE MEDICAL SOCIETY.—The Ohio State Medical Society meets in Columbus, June 13, at 2 P. M., at Wirthwein Hall.

The following papers constitute the programme:

a "Radical Cure of Hernia." (With Exhibition of Cases.) D. P. Allen, Cleveland.

b "Radical Cure of Hernia." A. W. Ridenour, Massillon.

c "Contagiousness of Disease." H. J. Herrick, Cleveland.

d "The Treatment of Acne." B. M. Ricketts, Cincinnati.

e "Ergot and Its Uses in Labor and Uterine Hemorrhage." D. H. Brinkerhoff, Fremont.

f "Malpractice Suits." P. S. Conner, Cincinnati.

g "An Experimental Demonstration of the Value of Gaseous Enemata in the Diagnosis of Perforations of the Intestines, and their Repair by the Rubber Ring and Decalcified Plate Method." R. Harvey Reed, Mansfield.

h "The Therapy of Tuberculosis." J. T. Whittaker, Cincinnati.

i "Tubercular Diathesis." W. C. Chapman, Toledo.

j "Four Cases of Diabetes Mellitus, Which I Did Not Cure." W. J. Scott, Cleveland.

k "On the Consequence of Acute Suppuration of the Middle Ear, With Special Reference to Opening the Mastoid." A. R. Baker, Cleveland.

l "Laparotomy for Rupture of Uterus, With Report of a Case." Chas. A. L. Reed, Cincinnati.

n "Treatment of Fibroid Tumors of the Uterus by Electrolysis, as Advised by Apostoli." A. B. Carpenter, Cleveland.

o "The Importance of the Early Recognition of Glaucoma." H. P. Allen, Columbus.

p "The Value of Eye Symptoms to the General Practitioner in Diseases of the Nervous System." C. W. Tangeman, Cincinnati.

q "Diseases of the Skin Due to Defective Alimentation." W. T. Corlett, Cleveland.

r "Two Cases of Ectopic Gestation," and "Excision of Upper Jaw for Bony Tumor." W. D. Hamilton, Columbus.

s "The Painless Treatment of Rectal Diseases." H. M. Brown, Hillsboro.

t "Indigestion." J. U. Barnhill, Columbus.

u "Infant Feeding." W. S. Christopher, Cincinnati.

v "A Case Illustrating the Relation Existing Between Diseases of the Eye and Nose." C. F. Clark, Columbus.

w "The Treatment of Pott's Disease—with Cases." H. Longstreet Taylor, Cincinnati.

x "Elastic Extension in the Treatment of Chronic Inflammation of Joints." S. L. McCurdy, Dennison.

y "A Rare Case of Orbital Tumor." J. W. Wright, Columbus.

z "Some Interesting Cerebral Lesions as Revealed by Post-Mortem Examinations, and a Study of Their History and Symptoms." R. Harvey Reed, Mansfield.

The following amendments to the Constitution, proposed by Dr. W. B. Davis, Cincinnati, will come up for consideration on the first day:

I. "That a Standing Committee be appointed annually to report on the general subjects of Medicine and Surgery, respectively."

II. "That candidates for the elective offices, viz.: President, Vice Presidents, Secretaries, Treasurer and Standing Committees, be nominated by a general committee, consisting of a delegate from each county represented in the State Society."

Reduced rates may be obtained on all railroads on the following conditions: Each person must purchase a first class ticket to Columbus; he must obtain from the ticket agent a certificate of such purchase, which agents are instructed to furnish on request; he must have this certificate signed by the Secretary at the meeting. On presentation of this certificate to ticket agents in Columbus, they are instructed to sell return tickets at *one-third the highest limited fare.* Tickets should not be purchased more than *three days prior* to the meeting. Certificates are good for *three days after* the meeting, and are *not transferable.* Return tickets are limited to continuous passage. If through tickets cannot be procured at the starting point, purchase ticket to most convenient point where they can be procured, and buy ticket and get certificate from ticket agent there. *No refund of fare will be made on any account whatever because of failure to obtain certificates.*

THE meeting of the American Medical Association, at Cincinnati, was undoubtedly a glorious success. Many men, especially from the East, whom we would have rejoiced to see present, who would have received a royal welcome had they come, and who ought to have come, were painfully conspicuous by their absence. Nevertheless, the meeting was a large and enthusiastic one, and the work, both of the general sessions and of the sections, was fully up to the average.

Cincinnati physicians did nobly as entertainers, casting aside all personal and college rivalries and jealousies.

Everybody appreciated the advantages of having everything under one roof; there was no hunting around for the sections. Even the exhibiters—and they were there in full force—had ample and excellent accommodations.

The *Lancet and Clinic*, in its daily editions, fairly exceeded the expectations of its warmest friends, and is to be congratulated on its success.

NEW MEDICAL COLLEGE IN DETROIT.—A few years ago the two medical colleges of Detroit consolidated into one, and the profession in general rejoiced at this evidence of prospective progress.

But now, however, the unwelcome announcement comes of the organization of a new school; and if there has been any rejoicing thereat, we have failed to catch any of its echoes.

ON THE OTHER HAND, the cheering news comes that the medical colleges heretofore existing in Minneapolis and St. Paul have been united into the Medical Department of the University of Minnesota. This school will be located in Minneapolis, but clinics will be given, in addition, in St. Paul, so as to utilize the teaching facilities of the twin cities.

SOME of our exchanges are indulging in tales of the number of visits made in a day by some of their Munchausen-descended correspondents. The fellow who made a hundred visits, and attended four confinement cases, is, at latest accounts, ahead. We do not propose to compete in this line, but offer the following as a starter in the line of polypharmacy.

It was written by a Columbus doctor, a graduate of a school which prides itself on its age and respectability, and the druggist assures us that he could not have been feeling extra well either when he wrote it. Although inessential, it might be mentioned that the patient had cancer of the liver, which the doctor had diagnosticated "cirrhosis." The prescription is given *verbatim:*

Fld. Ex Berberis Aquafolium	℥iij
" " Cascara Sagrada	℥ss
" " Mangranita Leaves	℥ij
" " Nettle	℥j
" " Stigmata of Maize	℥j
" " Jaboranda	℥ij
" " Jamaca Dogwood	℥j
" " Ailanthus Glandulosa	℥j
" " Boldo	ʒij
" " Cereus Bonplandii	ʒij
" " Yerba Buena	℥j
" " Ustilago Maydis	ʒij
" " Cocolmecan	℥j
" " Hair Cap Moss	℥j
" " Jurabilla Bark	℥j
" " Sarracenia Flava	℥j

Ex Malt, Mellis, Aquæ Dist. Simp Syr. Syr Limonis $\overline{\text{aa}}$ ℥j.
tablespoonful before meals daily.

DR. S. M. RICHARDSON, of New Metamoras, O., sends us the following order for drugs, which he says was sent him "by a man who is practicing medicine in W. Va., and who has quite a large country practice." The individual letters are fairly well formed, and our readers can exercise their wits in trying to make out the order:

25 cents Rubart
50 " gunine
25 " licker Numena
25 " thinker of iorn
25 " Bulae Mast
25 " Sweet S niter
25 " Sentorne.

INFORMATION WANTED.—"A Subscriber," from Louisville, Ky., desires the formula for the proprietary medicine sold as a syphilitic remedy, and labeled "S. S. S." Can any of our readers give it?

THE Advertising Agency of Mr. J. H. Bates, who two years ago merged into his own the business of S. M. Pettengill, has been removed from 41 Park Row to commodious and spacious quarters in the magnificent fire-proof Potter Building, No. 38 Park Row, New York.

He has been in the advertising business twenty-five years. In that time he has paid to newspapers and other periodicals for advertising $15,000,000, and has promptly and fully met all just claims on him. We have had repeated and numerous business transactions with him, and with all due earnestness and sincerity do most heartily wish that all other advertising agents were as reliable, as prompt, and as agreeable in their business transactions. We most cordially wish them continued success and prosperity.

THE Western Pennsylvania Medical College held its second Commencement March 24. Thirty-four graduates received the degree of M. D., an increase of 50 per cent. over its class of last year.

A banquet, with toasts, etc., fitly closed the second year of this new, and phenomenally successful, medical college.

DR. EDWARD S. DUNSTER, A.M., M.D., Professor of Obstetrics and Diseases of Women and Children, and Clinical Gynecology in the University of Michigan, died, May 3, at Ann Arbor.

EDWARD GREELY LORING, M.D., the ophthalmologist, died suddenly in New York, April 23, in the fiftieth year of his age. On the day of his death he attended to his practice as usual. It is understood that his sudden death was owing to heart disease.

SANDER & SONS' EUCALYPTI EXTRACT (EUCALYPTOL).—Apply to Dr. Sander, Dillon, Iowa, for gratis supplied reports on cures effected at the clinics of the Universities of Bonn and Greifswald.

REVIEWS AND BOOK NOTICES.

The Rules of Aseptic and Antiseptic Surgery. A Practical Treatise for the Use of Students and the General Practitioner. By Arpad G. Gerster, M. D., Professor of Surgery at the New York Polyclinic; visiting Surgeon to the Mt. Sinai Hospital and the German Hospital, New York. Illustrated with two hundred and forty-eight Engravings and three Chromo-lithographic Plates. New York: D. Appleton & Co. 1888. 8vo. Pp. 332.

This volume is far from being a complete treatise on surgery; it simply discusses the questions of asepsis and antisepsis, with tuberculosis, gonorrhea and syphilis incidentally considered. The book, however, is illustrated by a great many cases which are so presented as to show the methods of operation. The following extracts from the preface indicate the character of what follows:

"It cannot now be successfully denied that the surgeon's acts determine the fate of a fresh wound, and that its infection and suppuration are due to his technical faults of commission." "The principle underlying antiseptic surgery has ceased to be a subject of serious controversy. The author does not undertake to prove each of his statements to those who look but see not. His object is instruction rather than controversy. Every one will have to pass his period of apprenticeship, with its blunders and lessons. But he who becomes a master, to whom the primary healing of a fresh wound remains not a curiosity but becomes a matter of course, will not doubt the great change that has come over surgery."

The author states that: "When any one of those engaged at operations touches a not disinfected object—hands a chair, opens a window or door, helps the anesthetizer during a vomiting spell of the patient, scratches his face or wipes his nose—*it is absolutely* necessary that his hands be *scrubbed and disinfected* anew. Instruments that are accidently dropped should be left untouched. Raw assistants, and *eepecially nurses*, male and female, trained or untrained, should be earnestly instructed beforehand, and constantly watched afterward, regarding this all-important discipline."

This work occupies a field which has never been satisfactorily presented, and it will be welcomed by the medical fraternity. Typographically the volume is perfect.

Synopsis of the Physiological Action of Medicines. By Louis Starr, M. D., Clinical Professor of Diseases of Children, Hospital of University Pennsylvania, and James B. Walker, M. D., Professor of Practice of Medicine in Woman's Medical College, Philadelphia, assisted by W. M. Powell, M. D., Physician to the Clinic for Diseases of Children, Hospital of University of Pennsylvania. Third Edition. Enlarged. Philadelphia: P. Blakiston, Son & Co. 1888. 16mo. Pp. 72. Price 75 cents.

This "Synopsis" was prepared for the use of the students of the Medical Department of the University of Pennsylvania, with the approval of the Professor of Materia Medica. It is based on Prof. Wood's Treatise on Materia Medica, and is of little use to others than students of that book. It is intended merely as a more convenient form for reference than a chart. Every other page is blank, for notes.

The Year Book of Treatment for 1887. A critical Review for Practitioners of Medicine and Surgery. Lea Brothers & Co., Philadelphia. 1888.

This is the third Year Book of Treatment issued by these publishers. The value of such a publication is evident, as it contains, in convenient form, the cream of current medical literature for the year.

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